JTRP-64/AComp

APPENDICES

for the report

COMPARISON OF DIFFERENT METHODS OF MEASURING PAVEMENT CONDITION

(NCHRP 1-2)

by

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and

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APPENDIX A: Figures

APPENDIX B: Tables

APPENDIX C: Original Prospectus

School of Civil Engineering

Purdue University

Lafayette, Indiana

February, 1964

APPENDIX A, FIGURES

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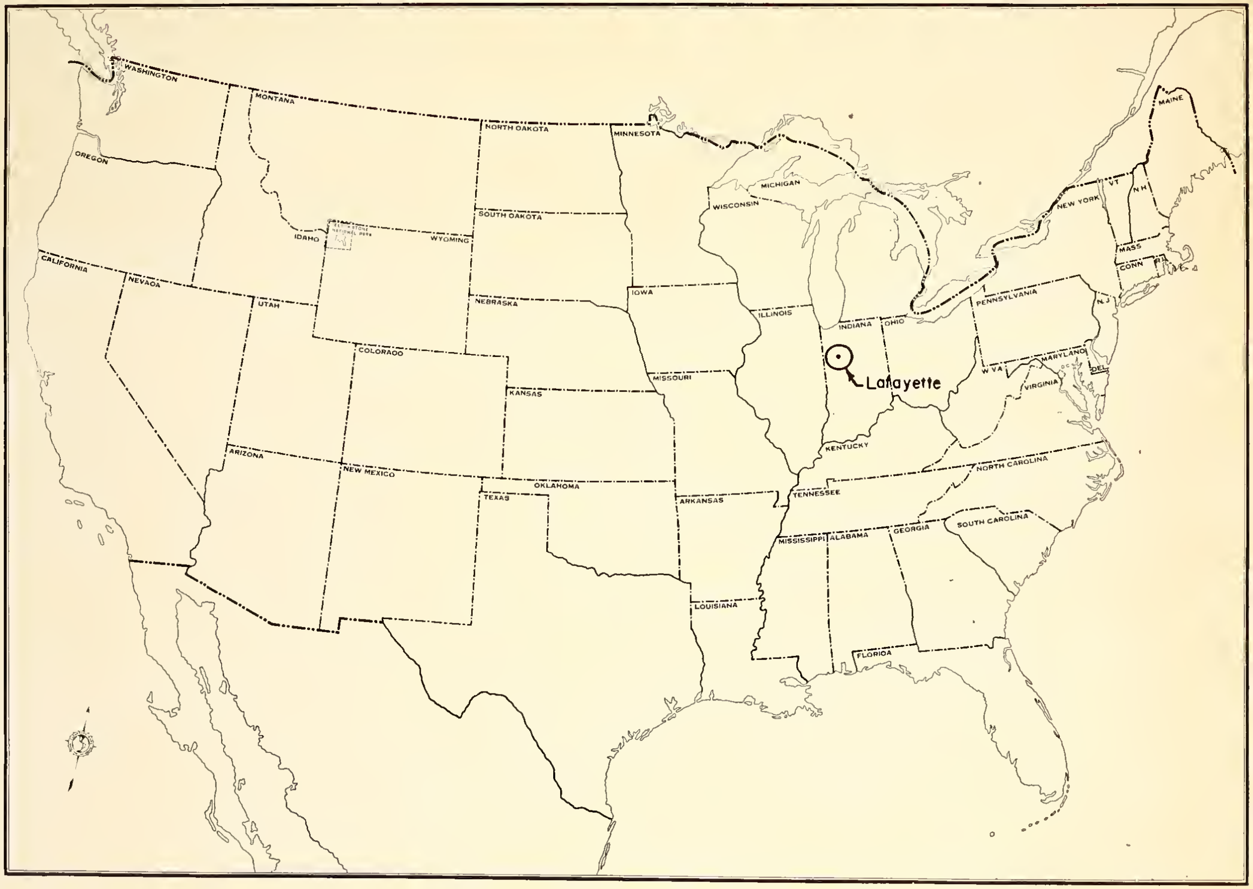


Figure I. Location of test sections.

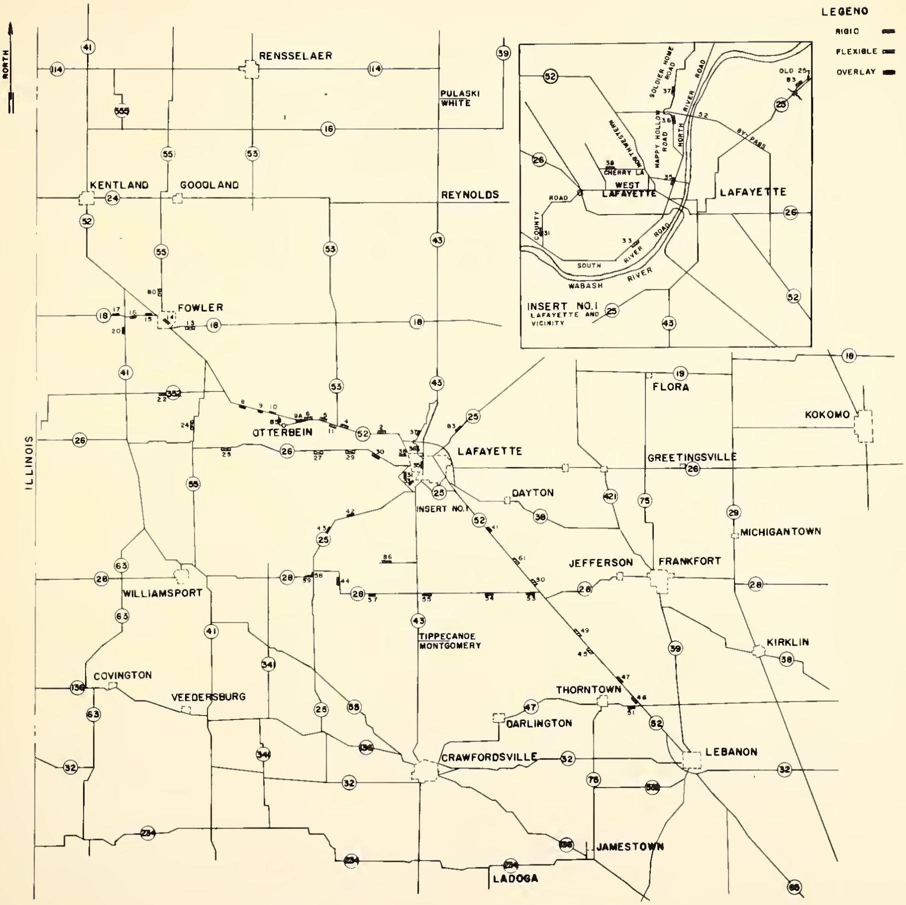
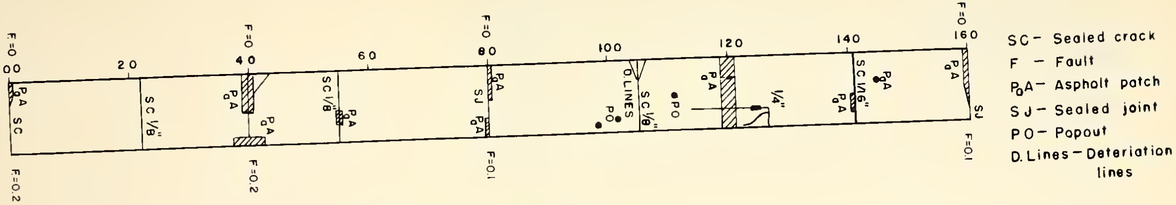
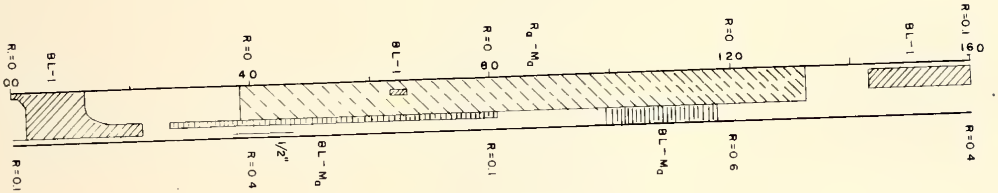


Figure 2. Location of test sections.

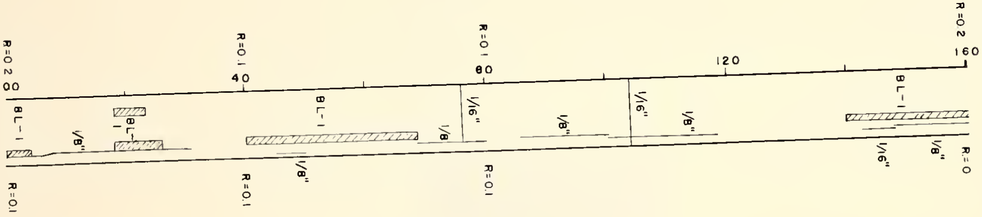


Rigid pavement



Flexible pavement

BL-M_a – Bleeding, major
BL-1 – Bleeding, intermediate
R – Rut depth
R_a-M_a – Ravelling, major



Overlay pavement

Figure 3. Portions of typical field maps.

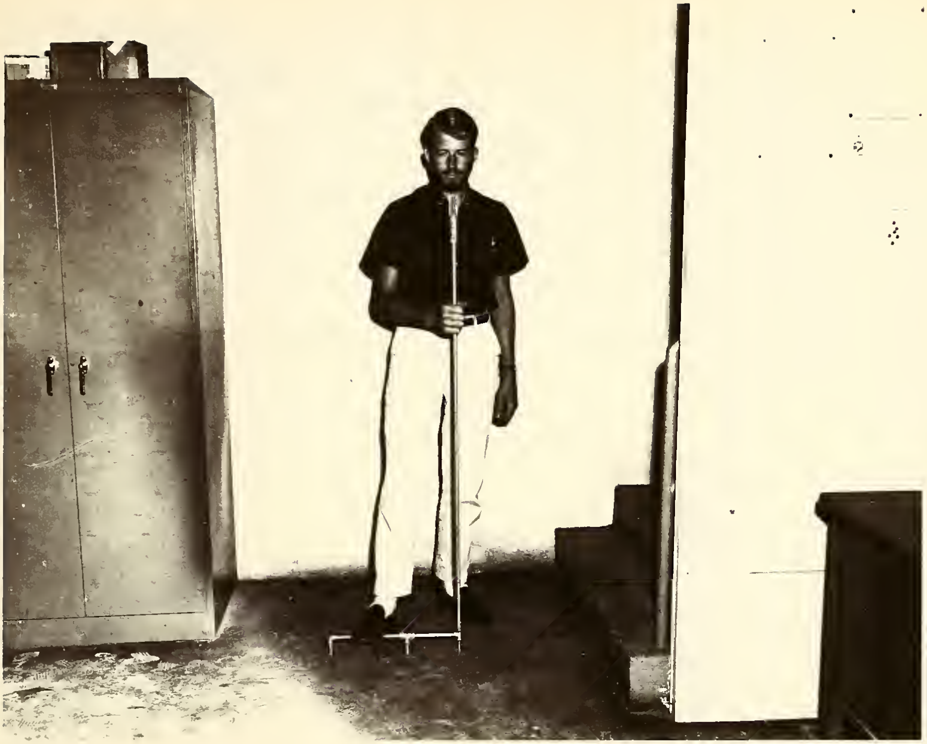


Figure 4. Faultmeter

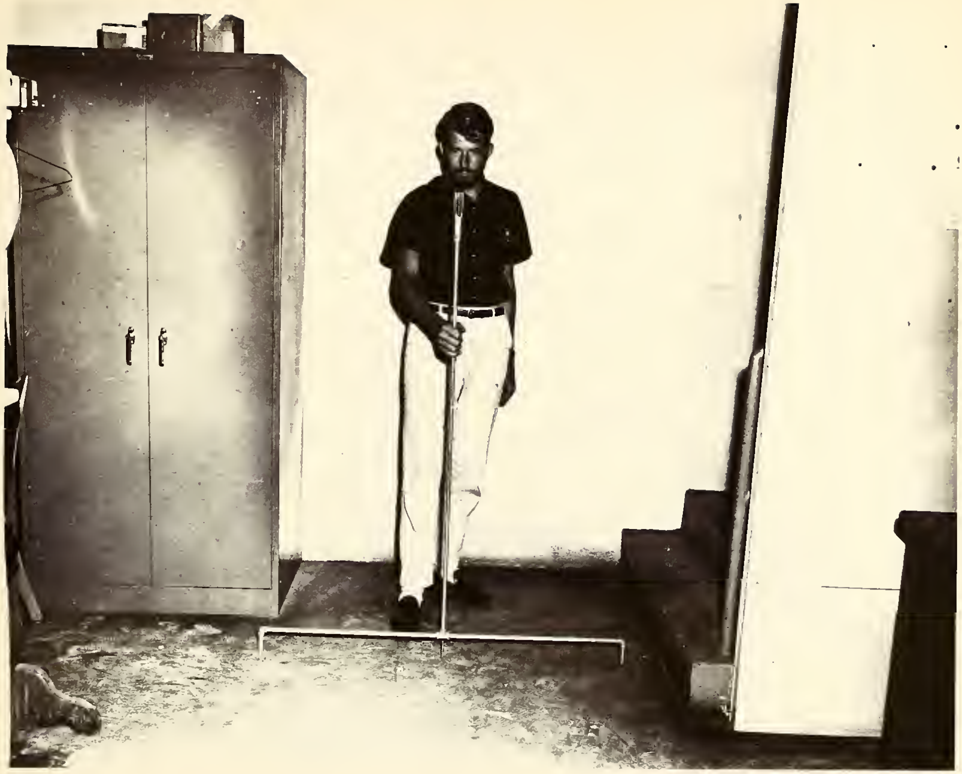


Figure 5. Rutmeter

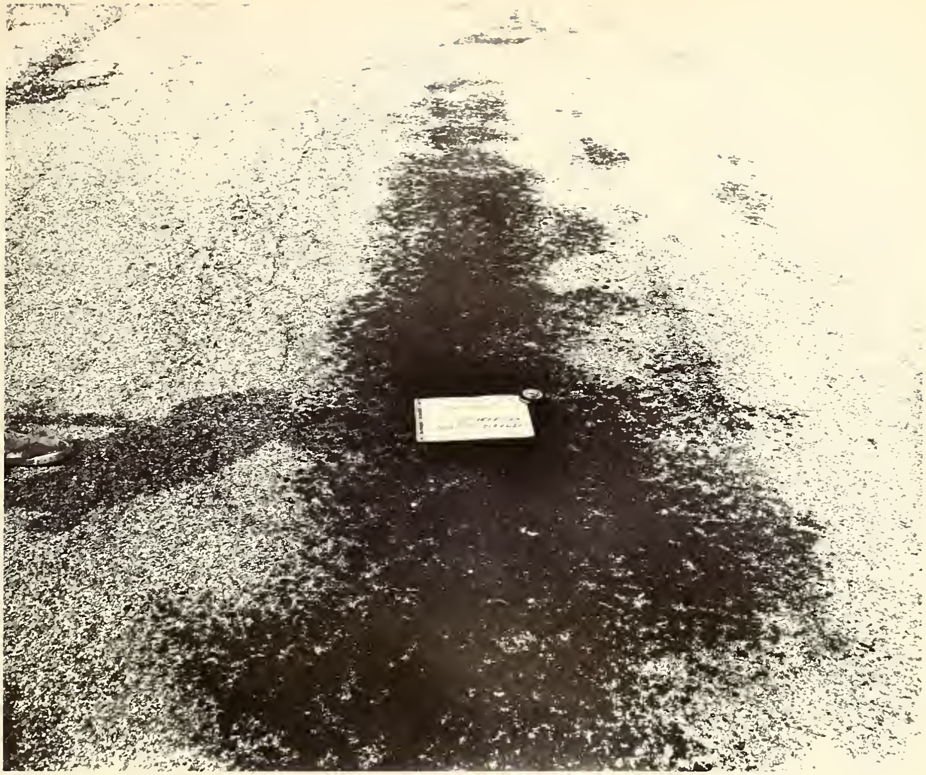


Figure 6. Major bleeding. Note intensity, continuity, and blackness of bleeding area. White paper on the pavement is approximatly 11 inches long.

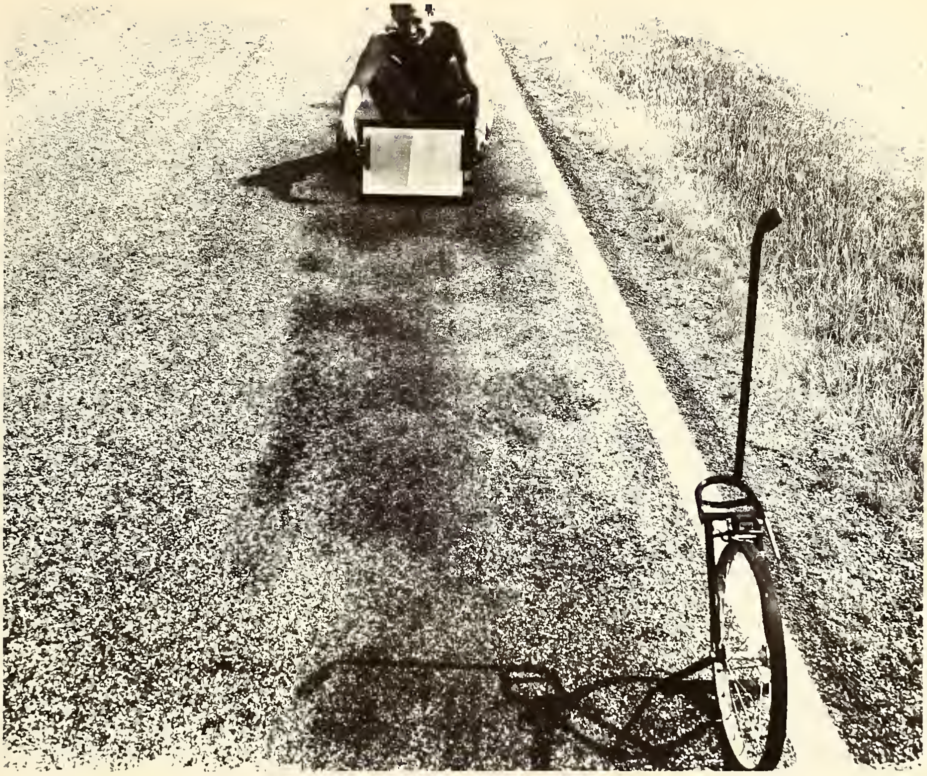


Figure 7. Intermediate bleeding. This stage of bleeding is discontinuous and is of non-uniform intensity.

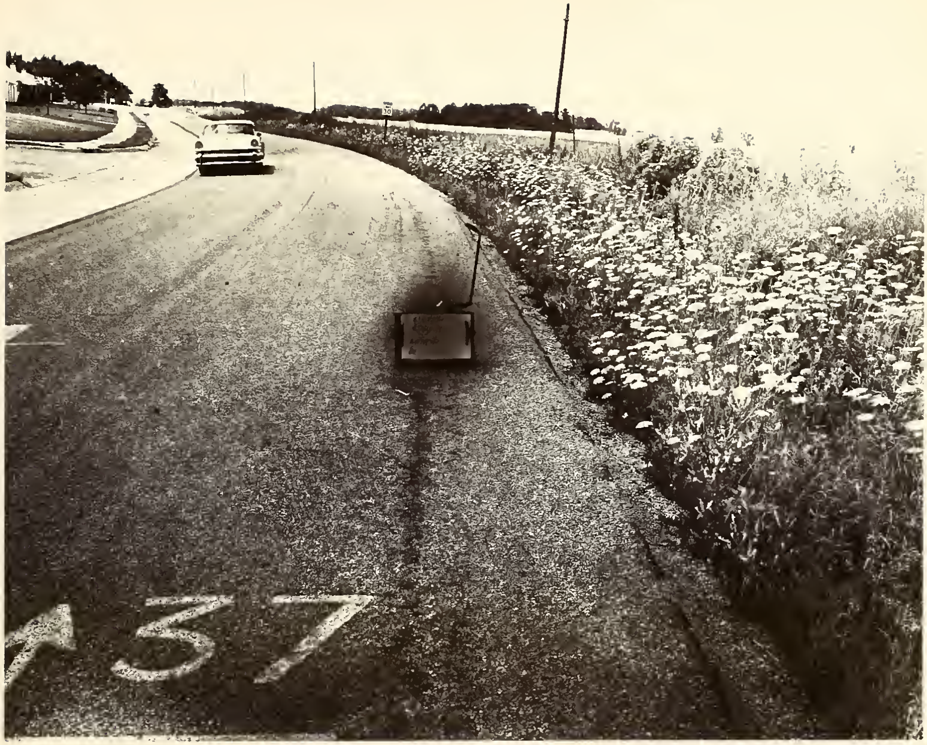


Figure 8. Strip of minor bleeding in center foreground.

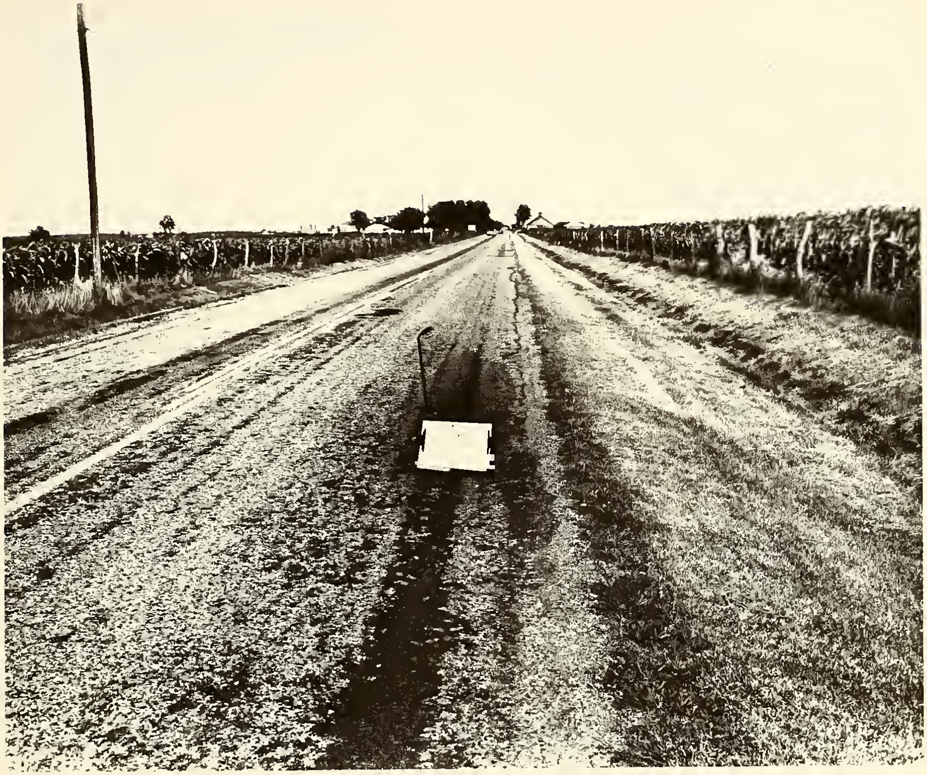


Figure 9. Major Ravelling. Note severity of ravelled areas.

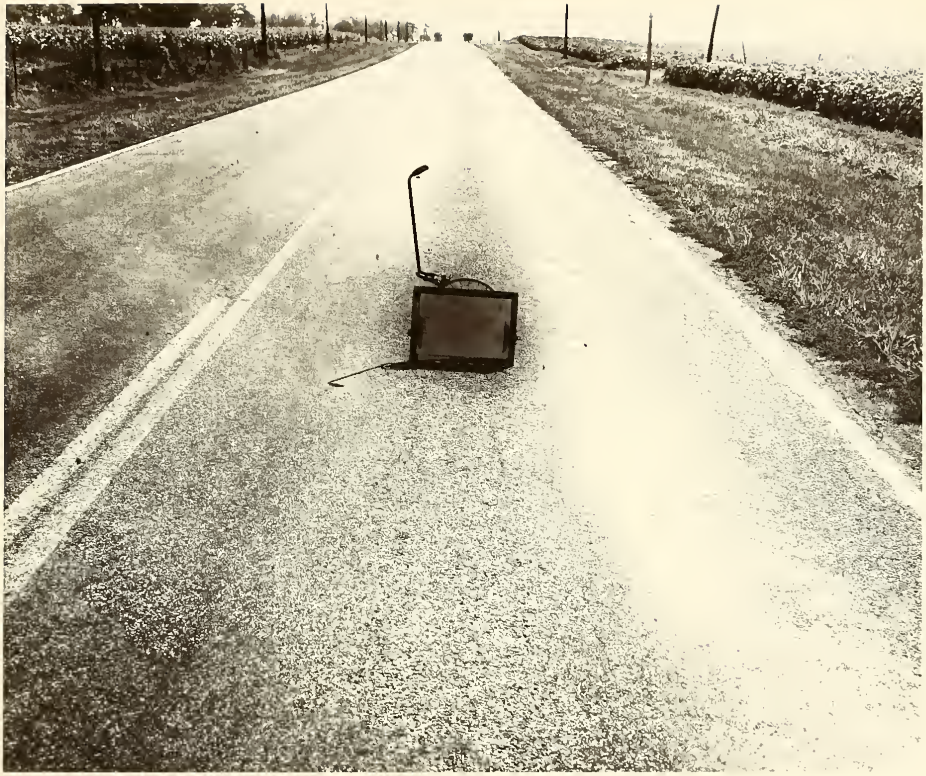


Figure 10. Intermediate ravelling in the center and along the right edge of the pavement.

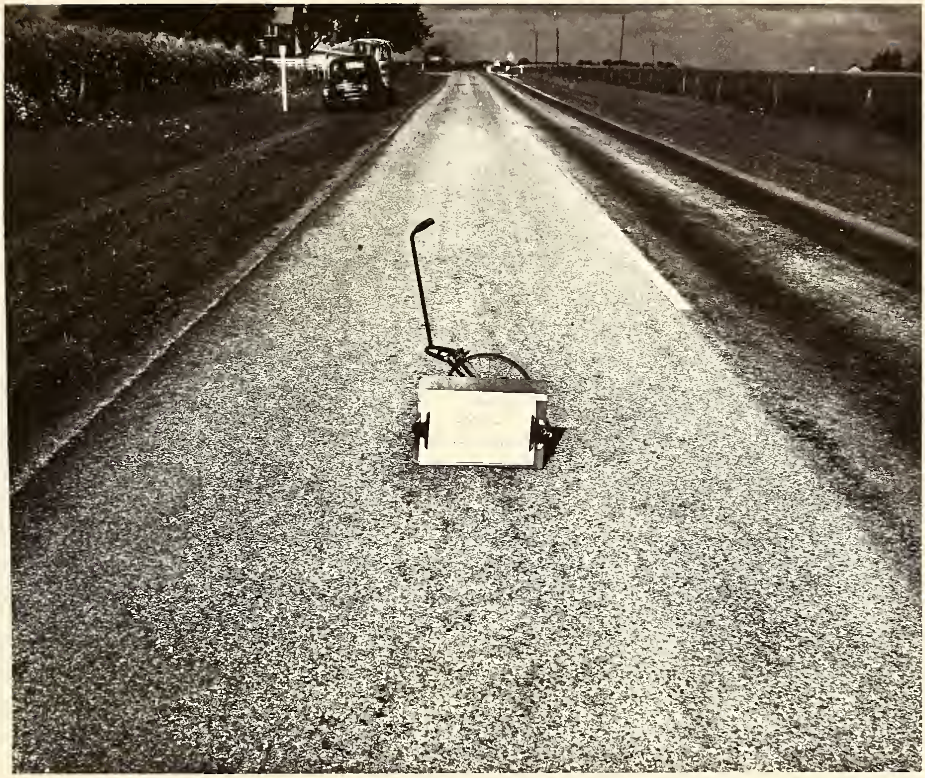


Figure 11. Minor ravelling of a rough textured flexible pavement.

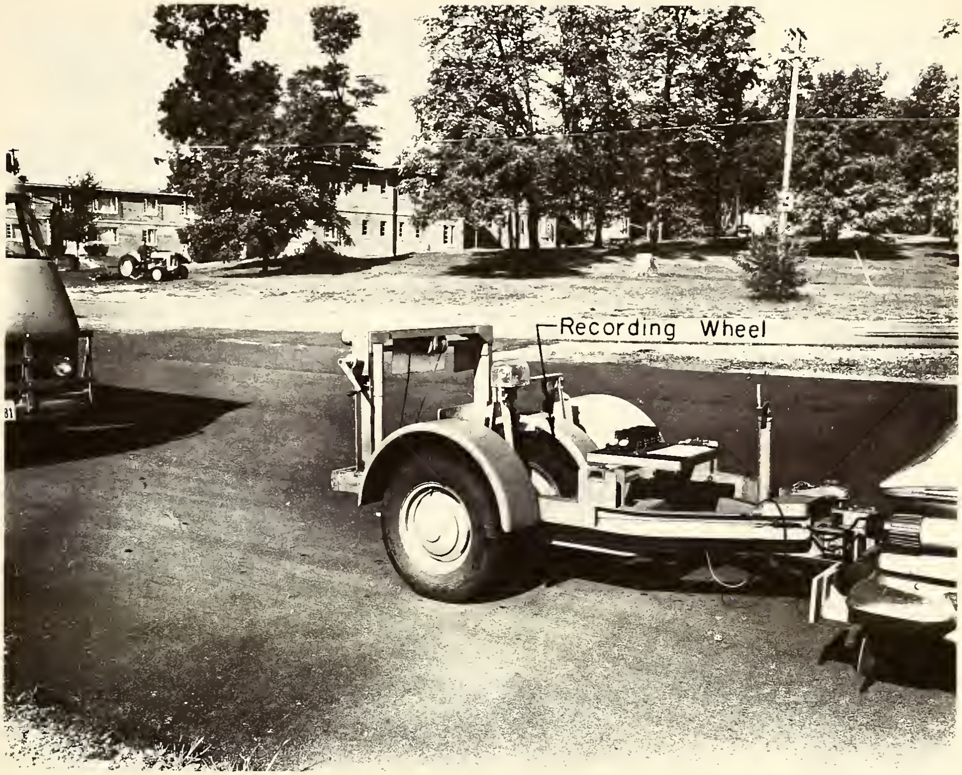


Figure 12. Bureau of Public Roads Roughometer. The recording wheel is in a raised position.

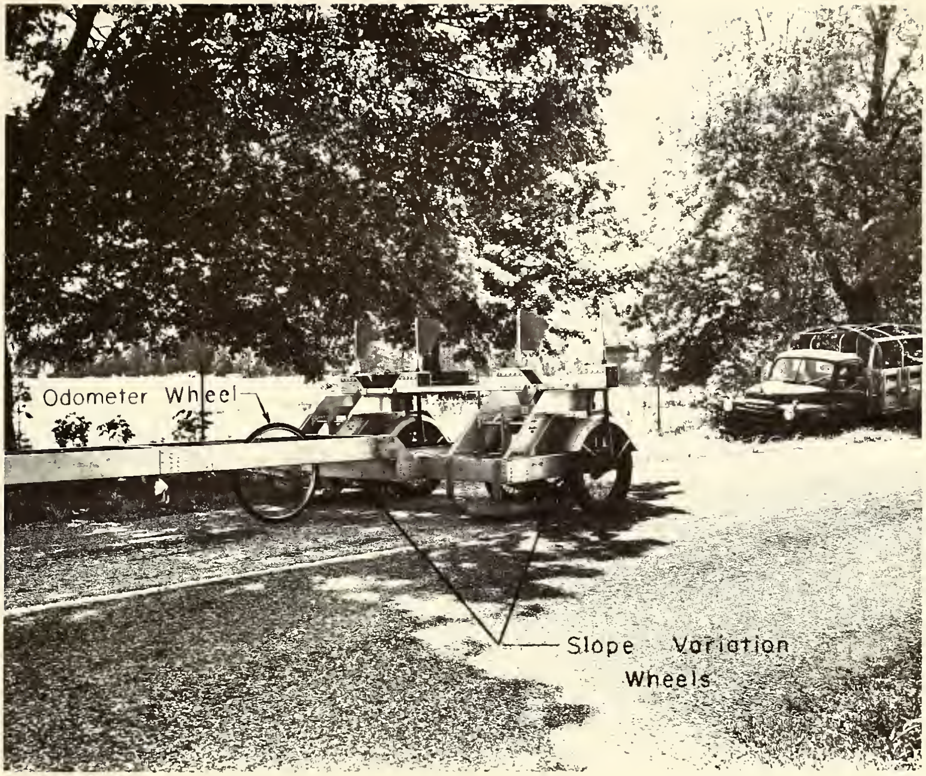


Figure 13. AASHC Slope Profilometer. Note the double set of wheels used to measure slope variation and the calibrated odometer wheel.

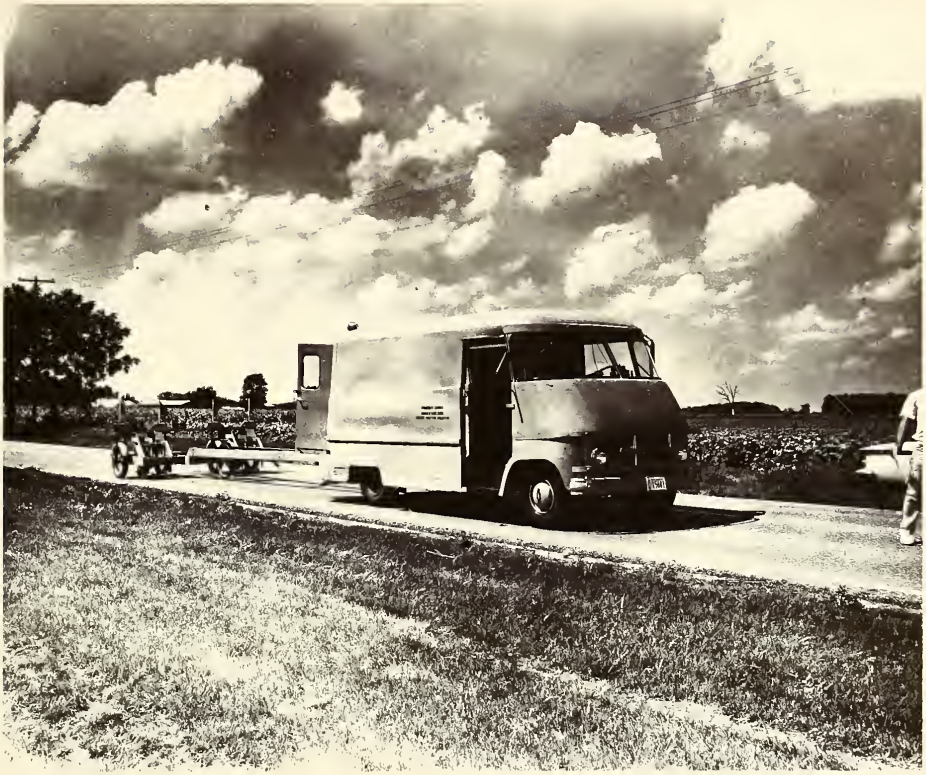


Figure 14. Overall view of the AASHO Slope Profilometer and Truck.

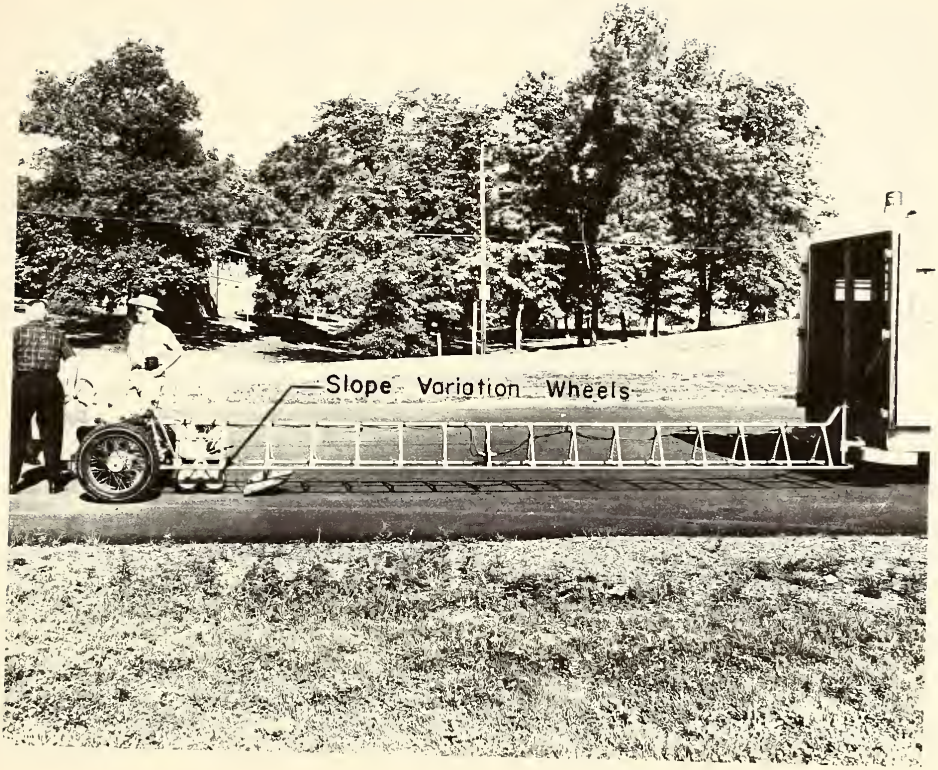


Figure 15. CHLOE Profilometer A single set of wheels are used to measure slope variation

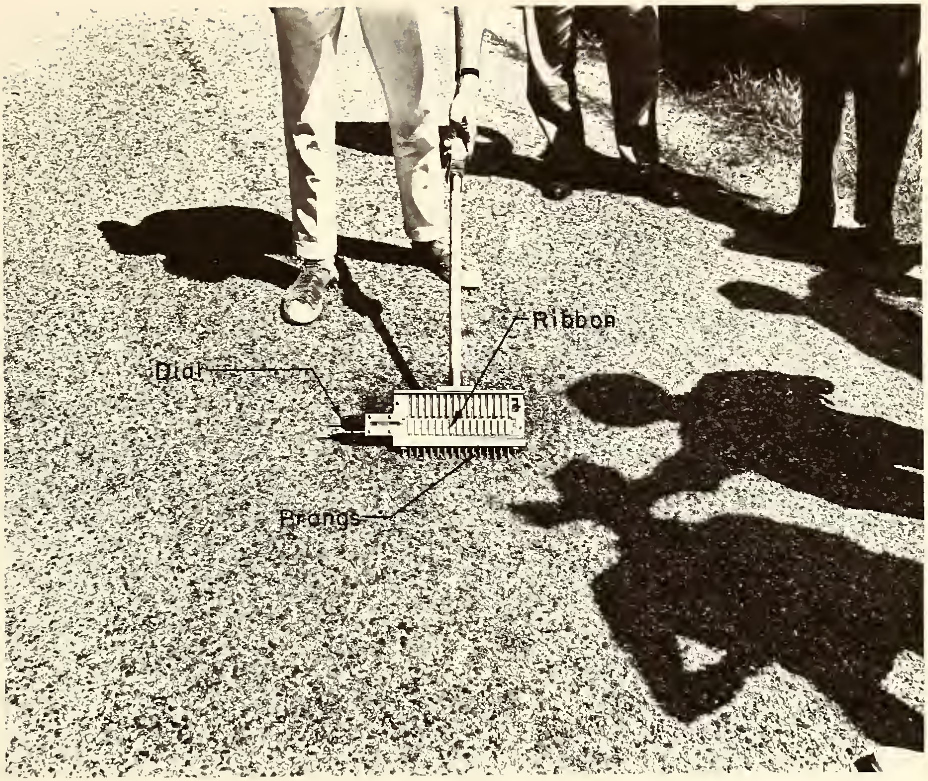


Figure 16. Texture meter. Note the prongs, dial, and deformable ribbon.

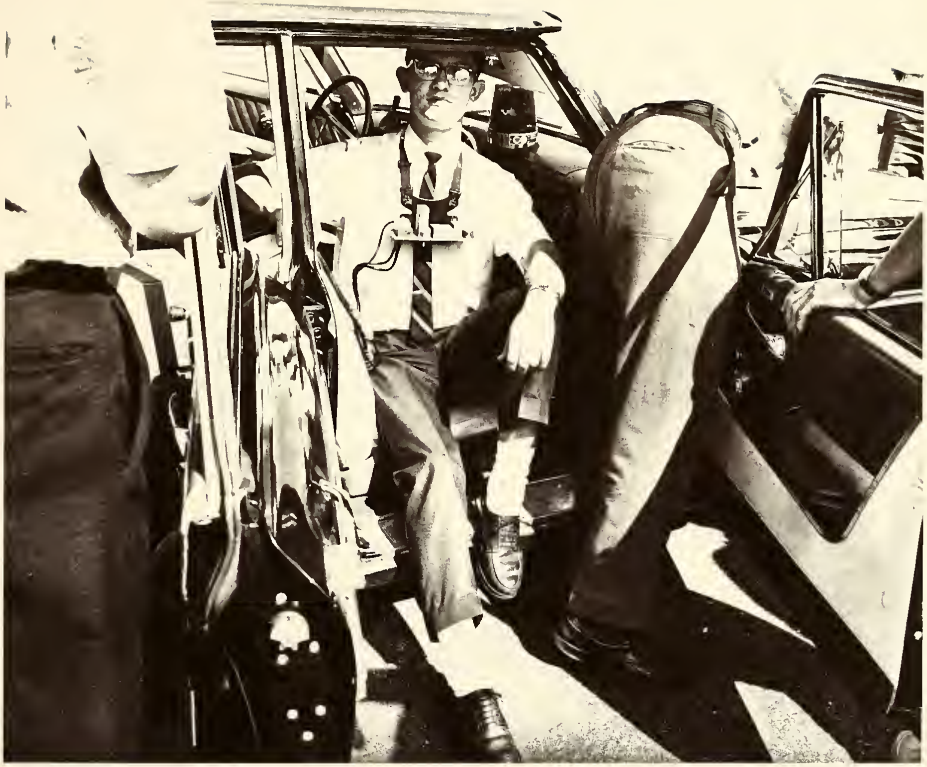


Figure 17. Kentucky accelerometers mounted on passenger's chest.

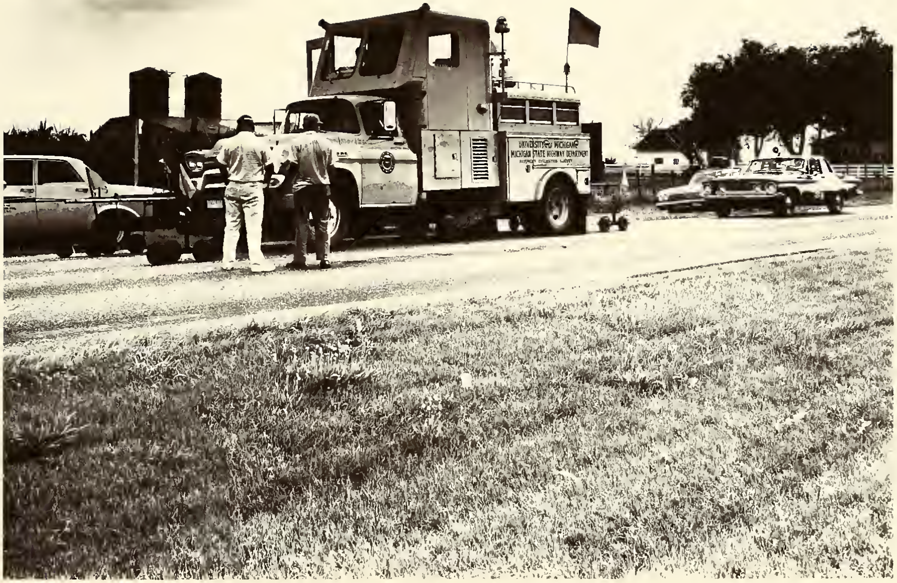


Figure 18. University of Michigan Profilometer.

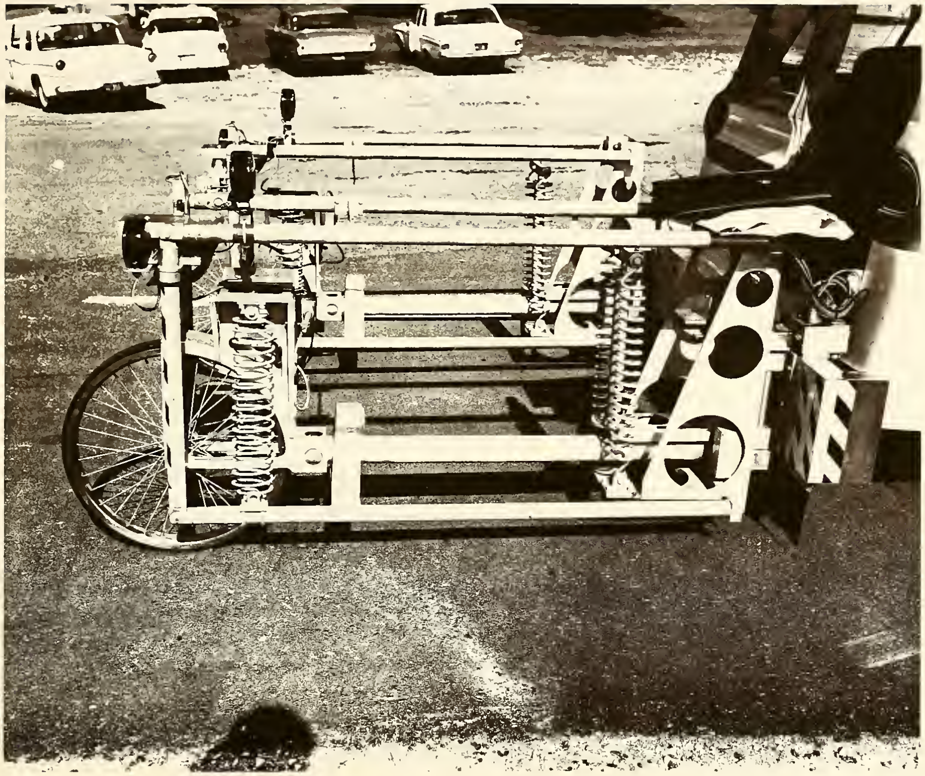


Figure 19. General Motors Device

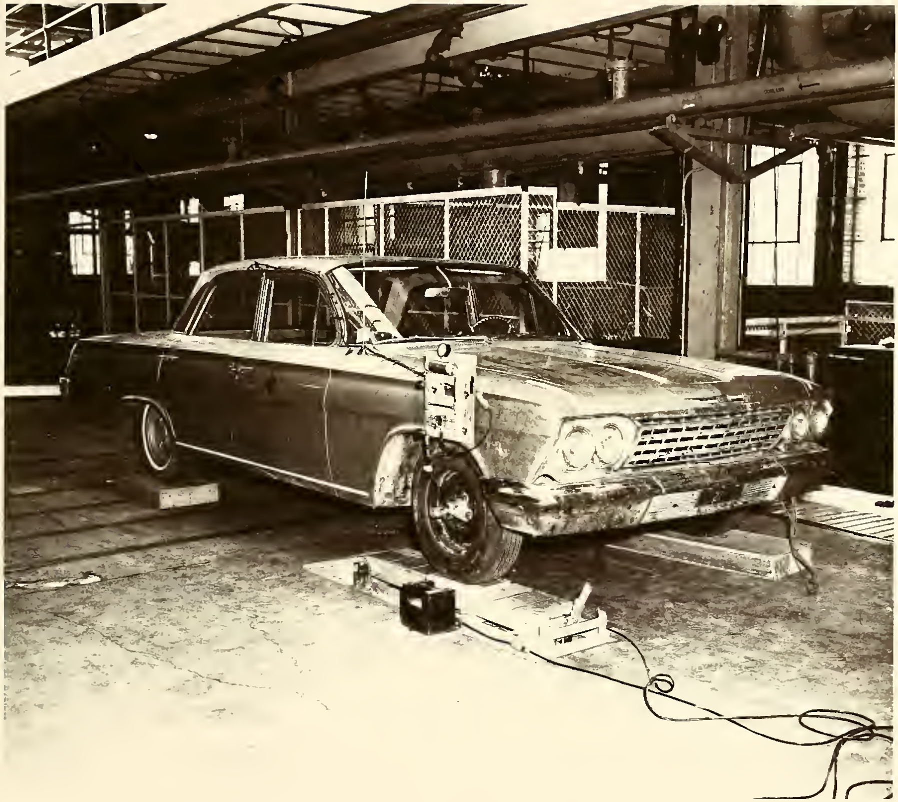
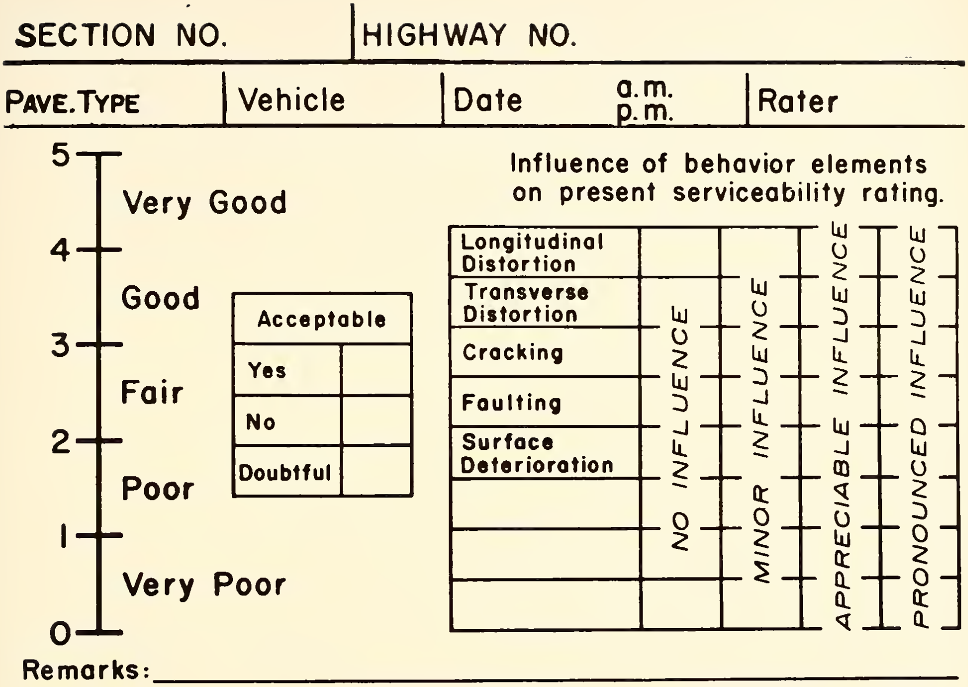


Figure 20. Purdue tire pressure device mounted on test vehicle.



SECTION NO. | HIGHWAY NO.

PAVE. TYPE | Vehicle | Date a.m. p.m. | Rater

5
Very Good
4
Good
3
Fair
2
Poor
1
Very Poor
0

Acceptable	
Yes	
No	
Doubtful	

Influence of behavior elements on present serviceability rating.

	NO INFLUENCE	MINOR INFLUENCE	APPRECIABLE INFLUENCE	PRONOUNCED INFLUENCE
Longitudinal Distortion				
Transverse Distortion				
Cracking				
Faulting				
Surface Deterioration				

Remarks:

Figure 21. Rating card.

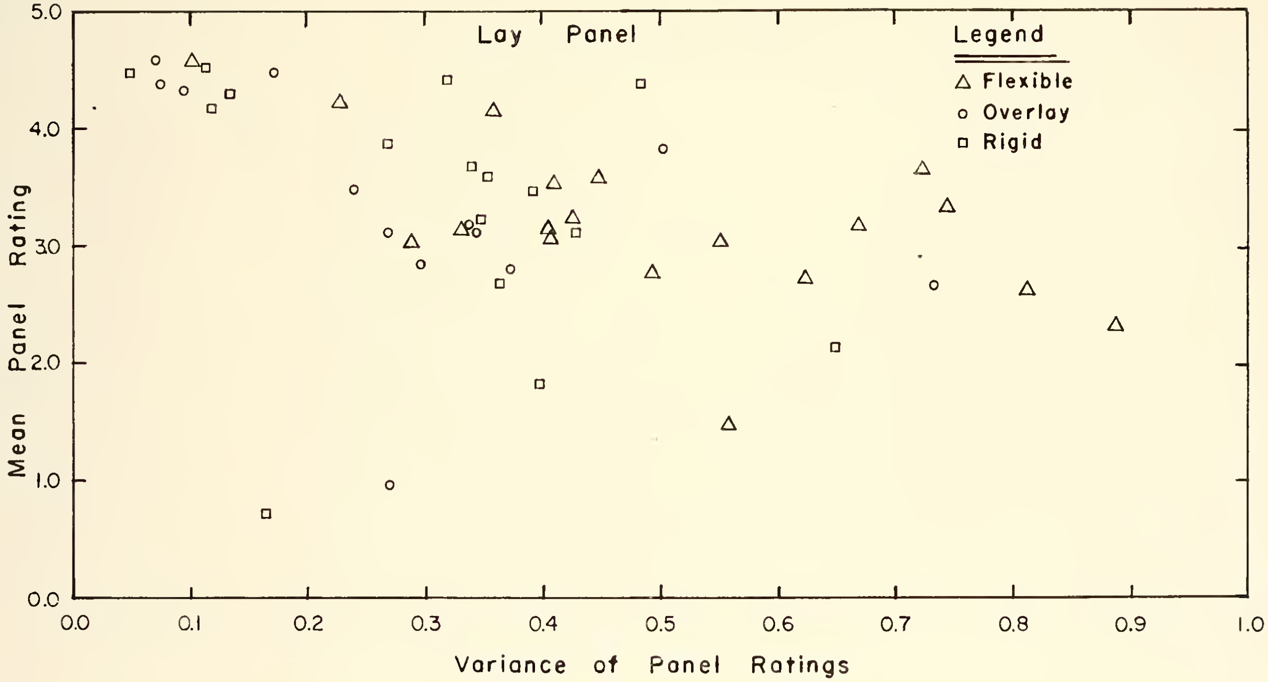


Figure 22. Variance of mean panel ratings.

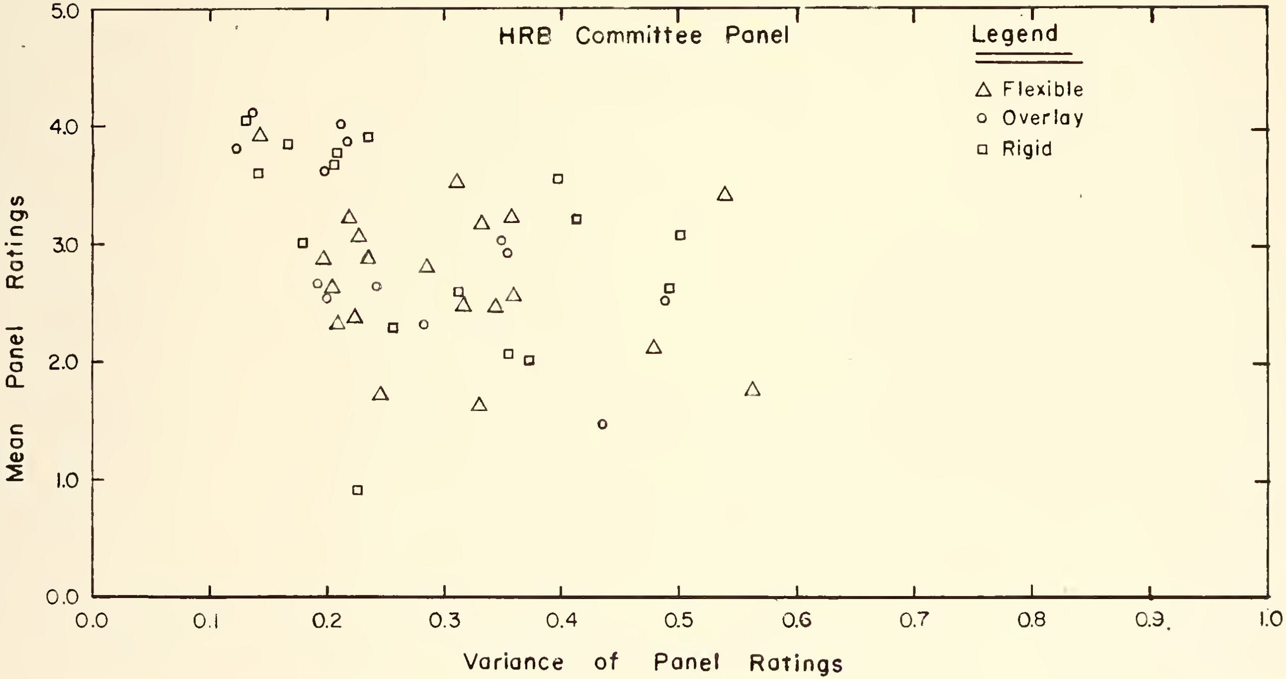


Figure 23. Variance of mean panel ratings.

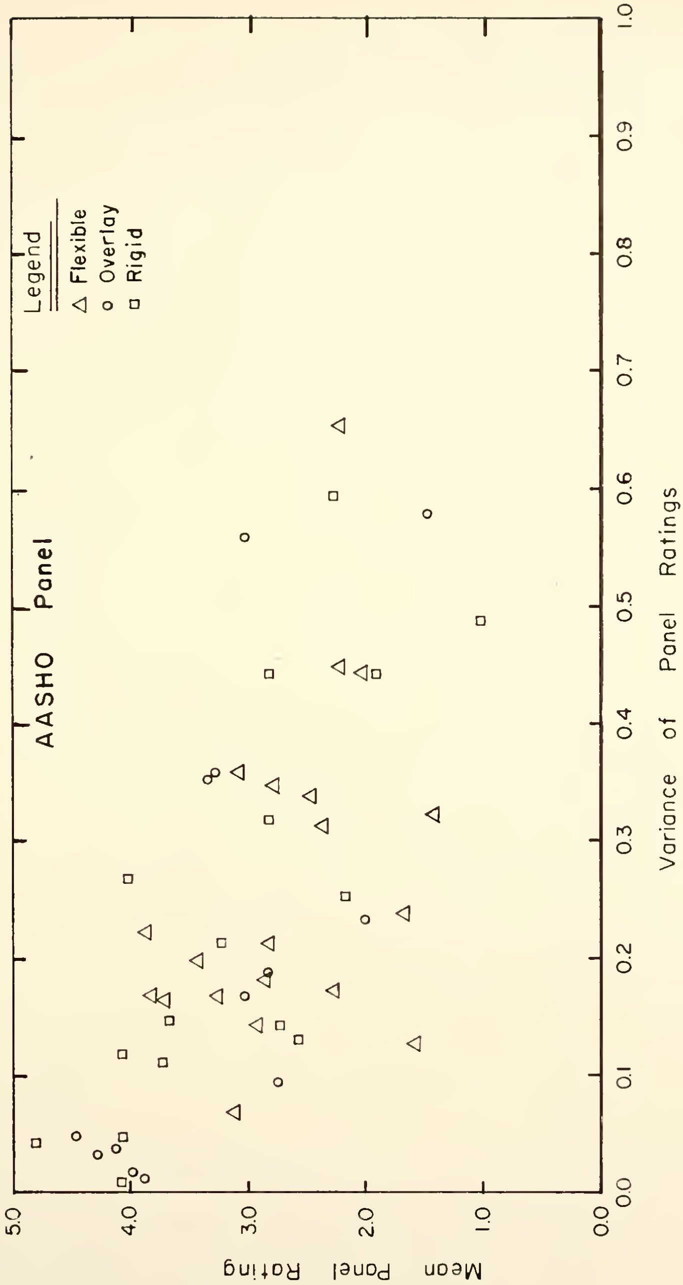


Figure 24. Variance of mean panel rating.

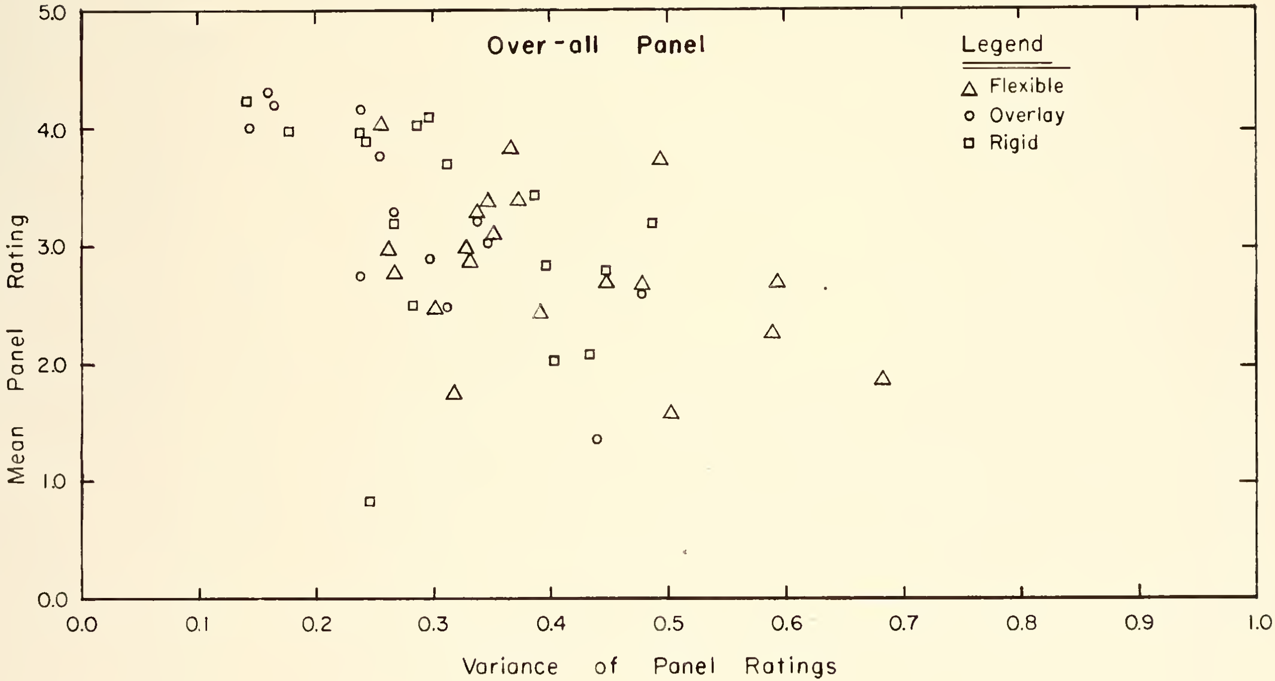


Figure 25. Variance of mean panel ratings.

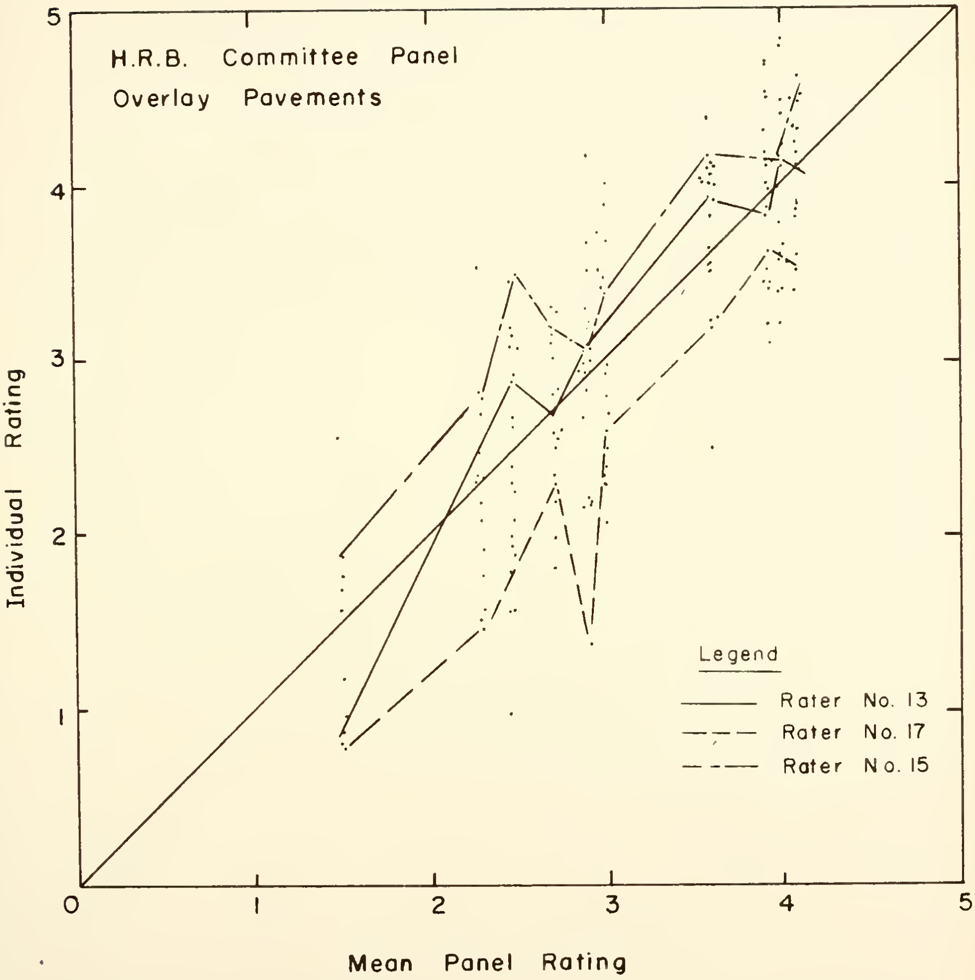


Figure 26 Example of Individual Ratings vs. Mean Panel Ratings

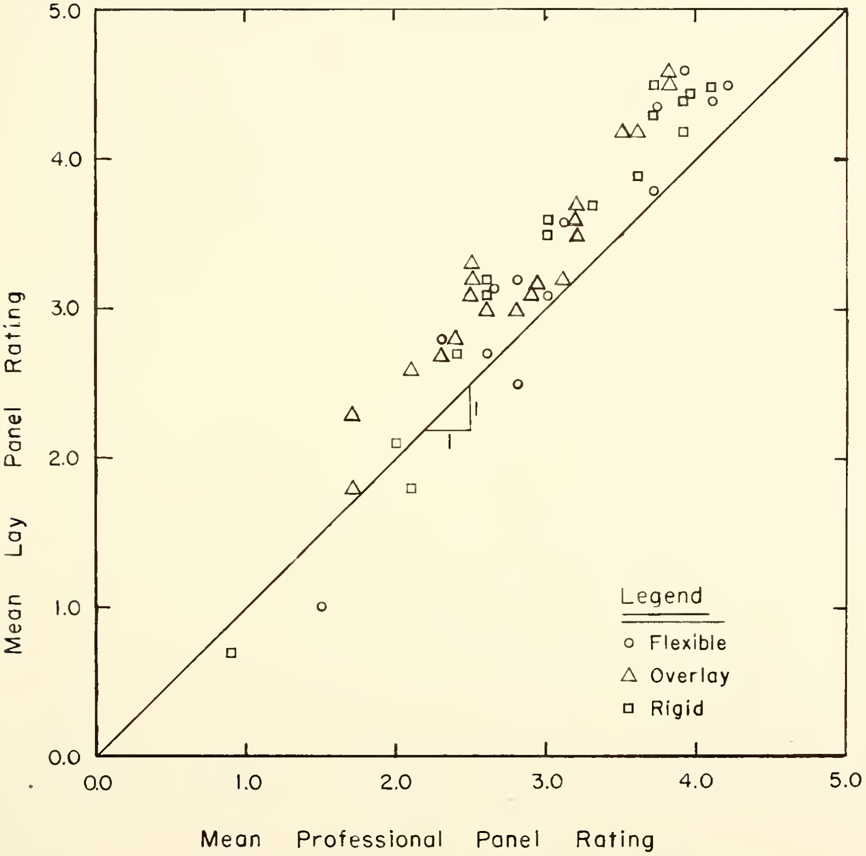


Figure 27. Comparison of professional and lay panels.

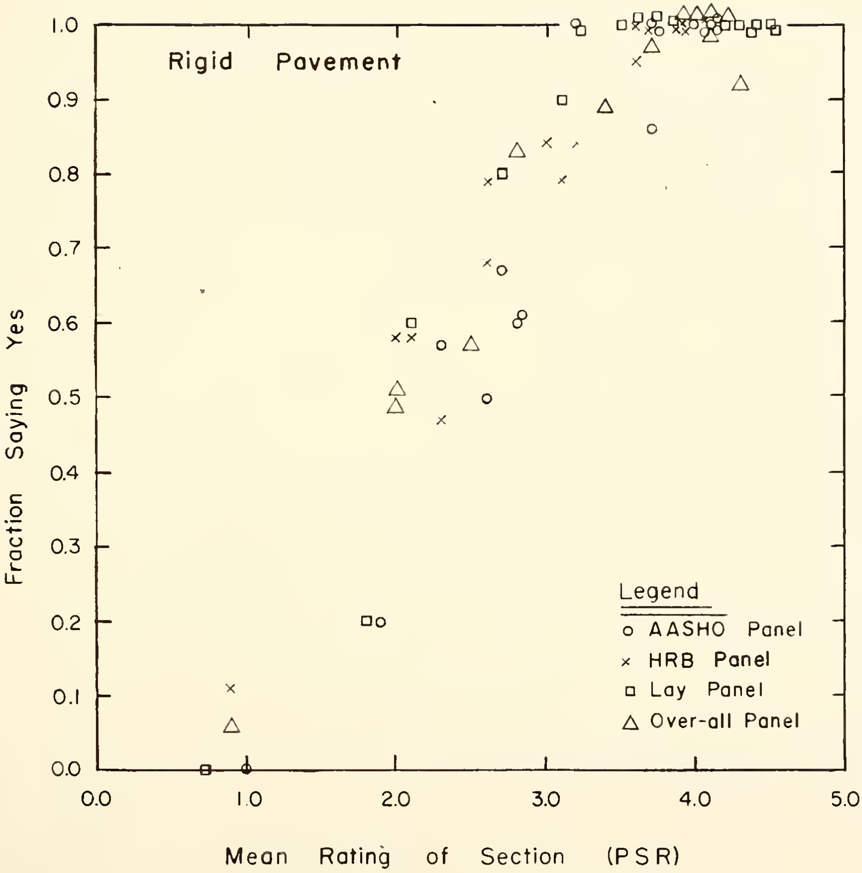


Figure 28. Acceptability vs mean rating.

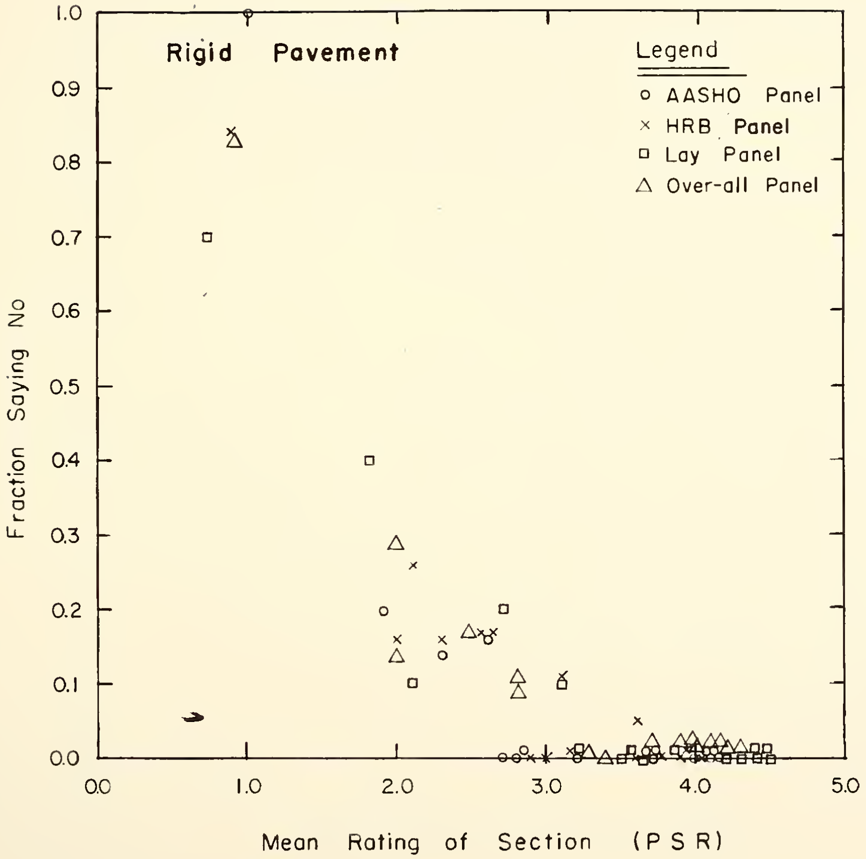


Figure 29. Unacceptability vs mean rating

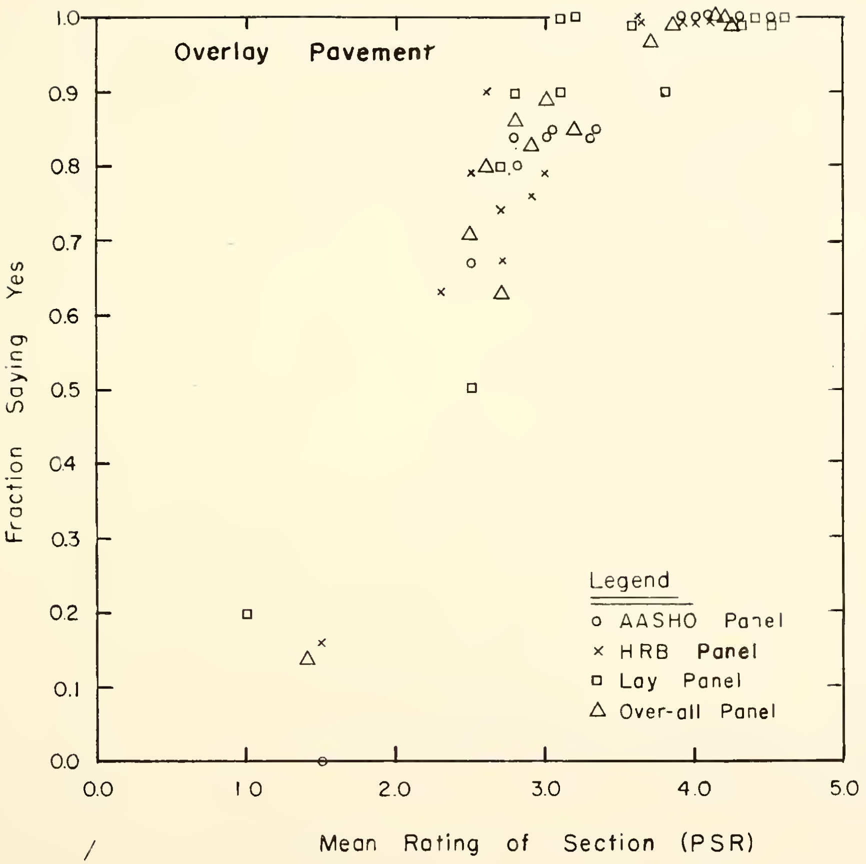


Figure 30. Acceptability vs mean rating

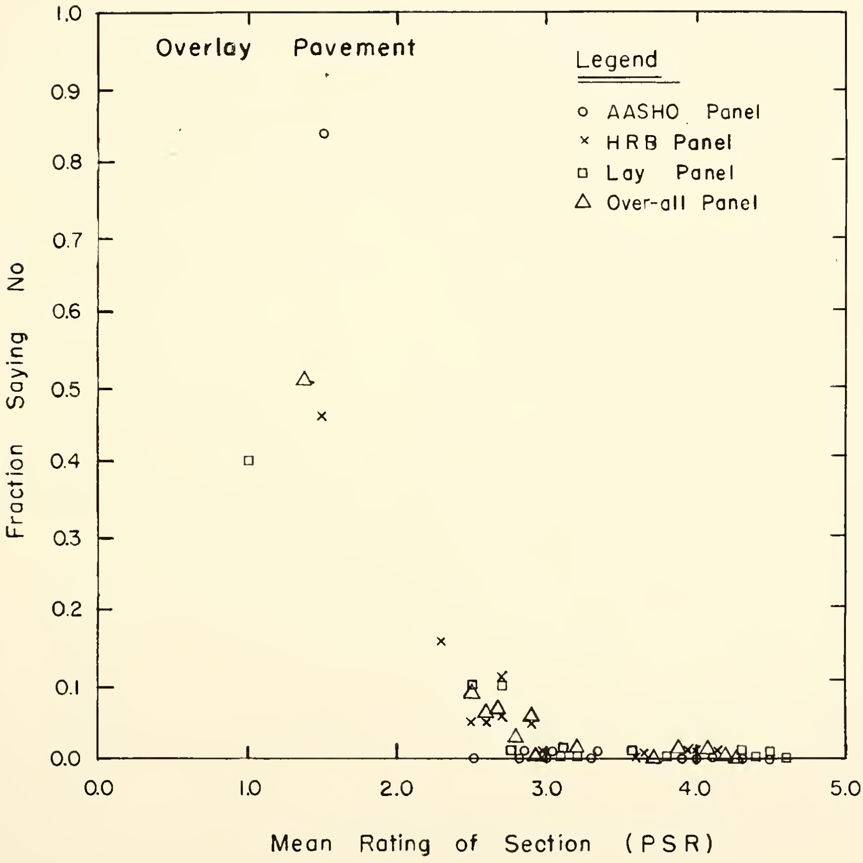


Figure 31. Unacceptability vs mean rating

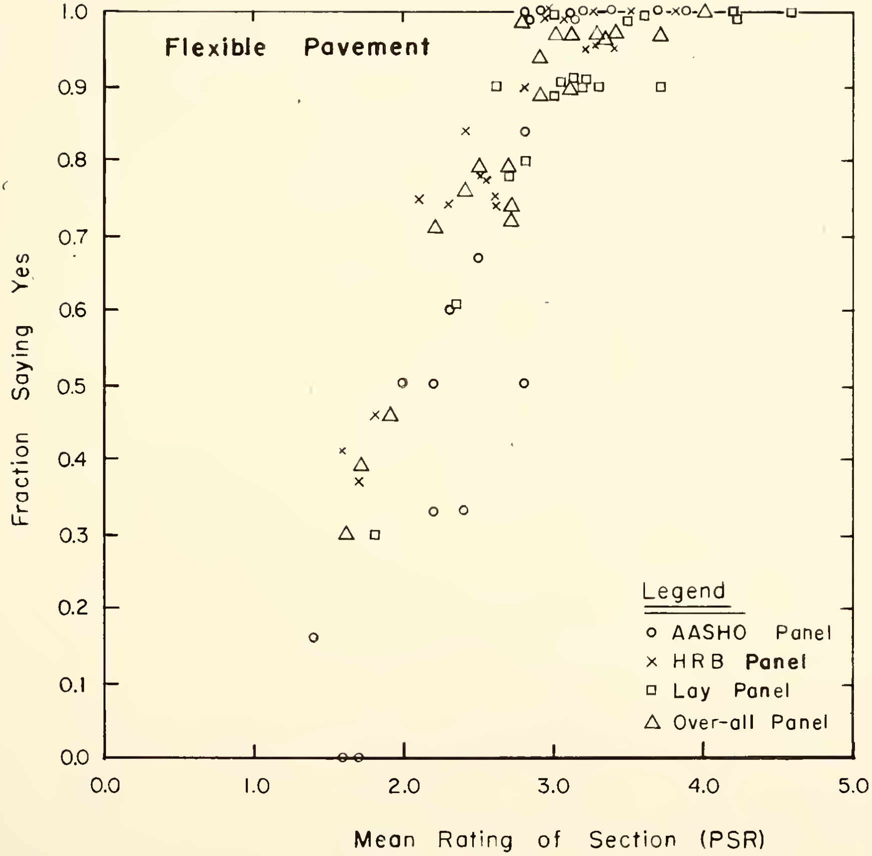


Figure 32. Acceptability vs mean rating.

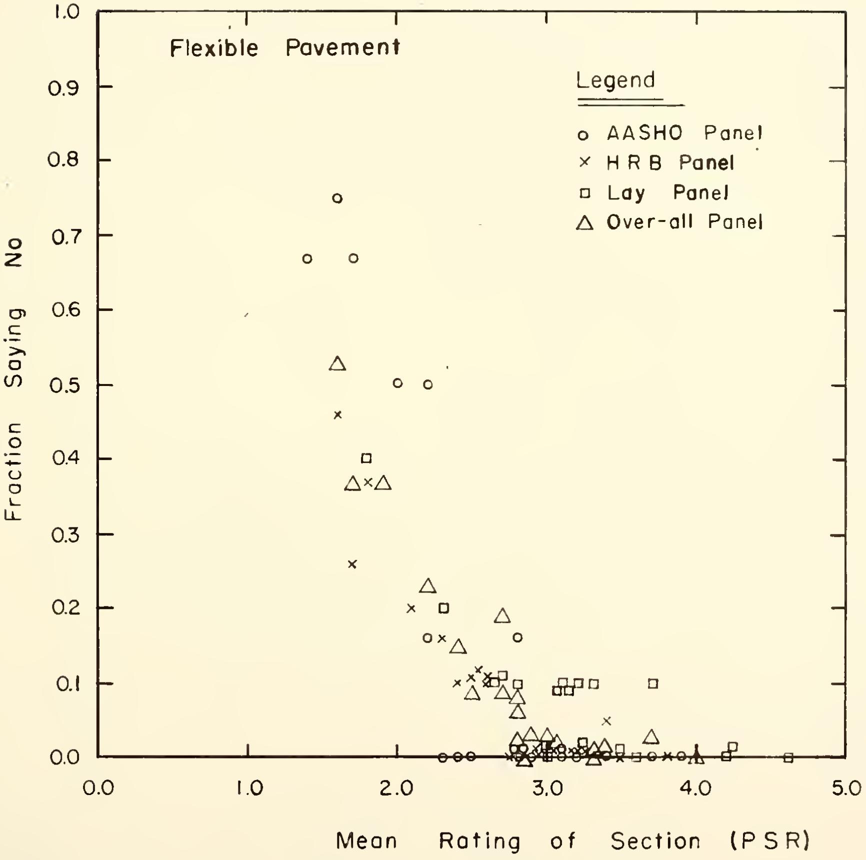


Figure 33. Unacceptability vs mean rating.

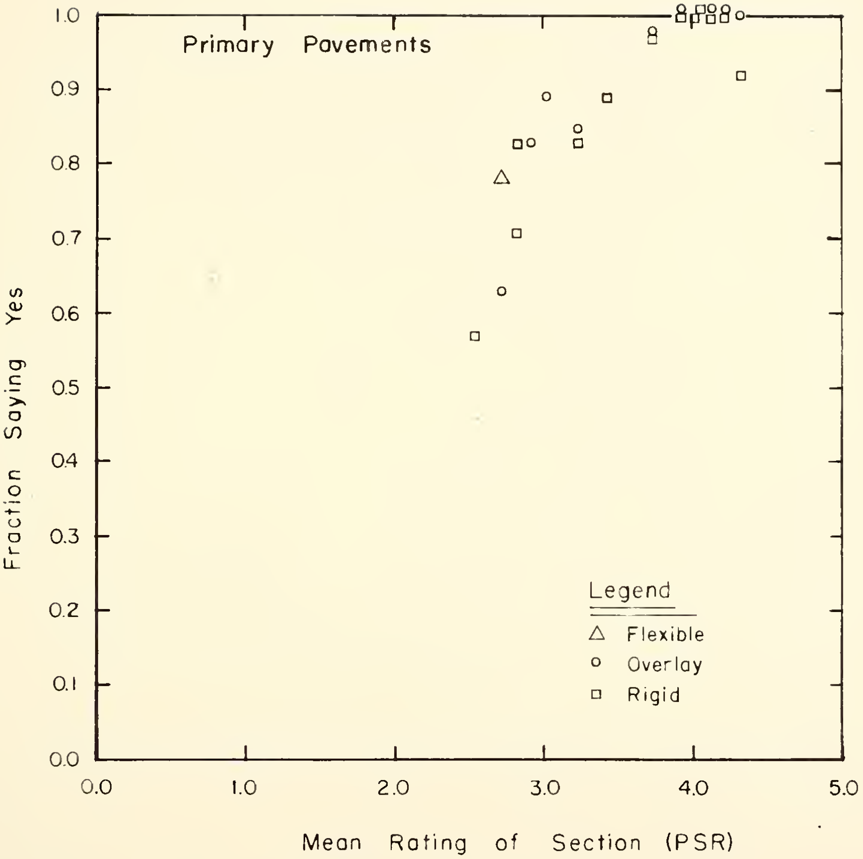


Figure 34. Acceptability vs mean rating.

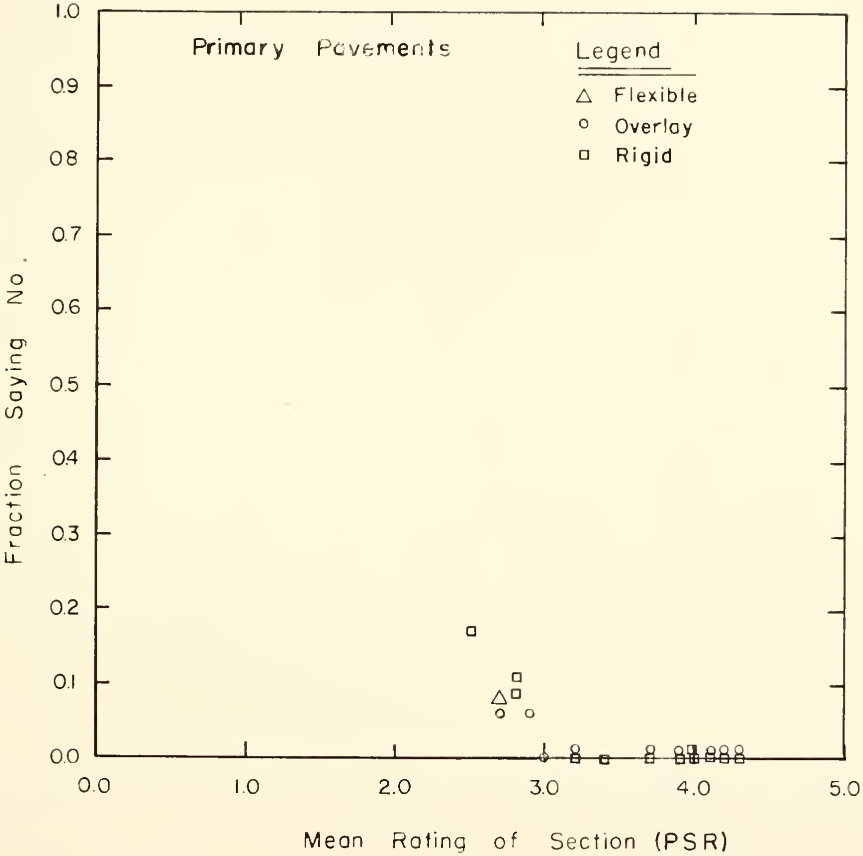


Figure 35 Unacceptability vs mean rating

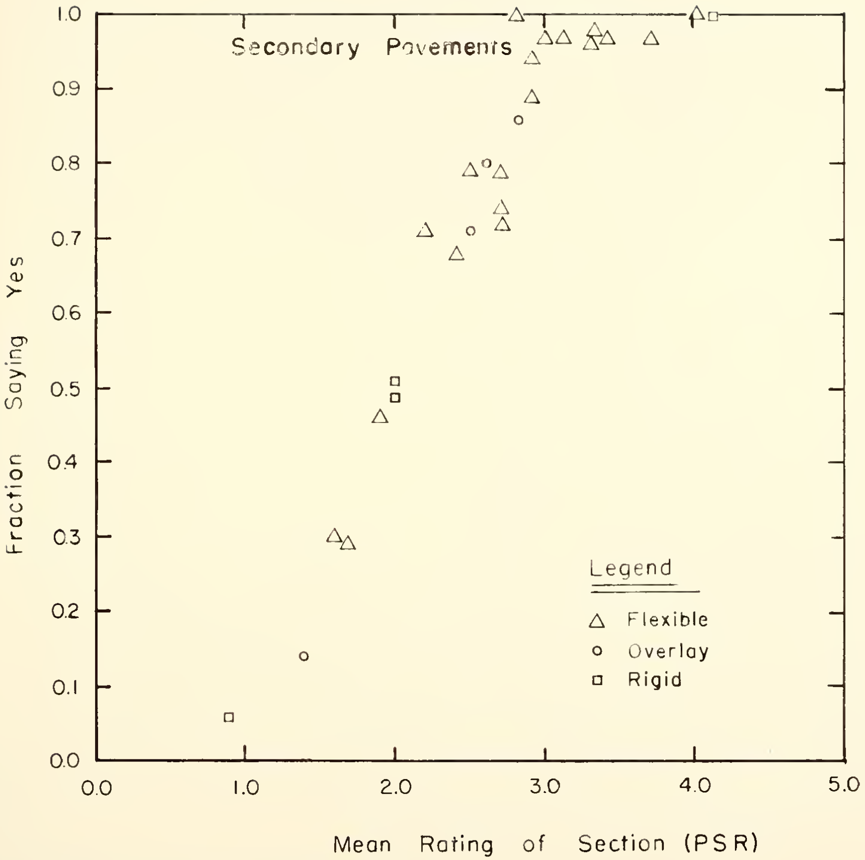


Figure 36 Acceptability vs mean rating

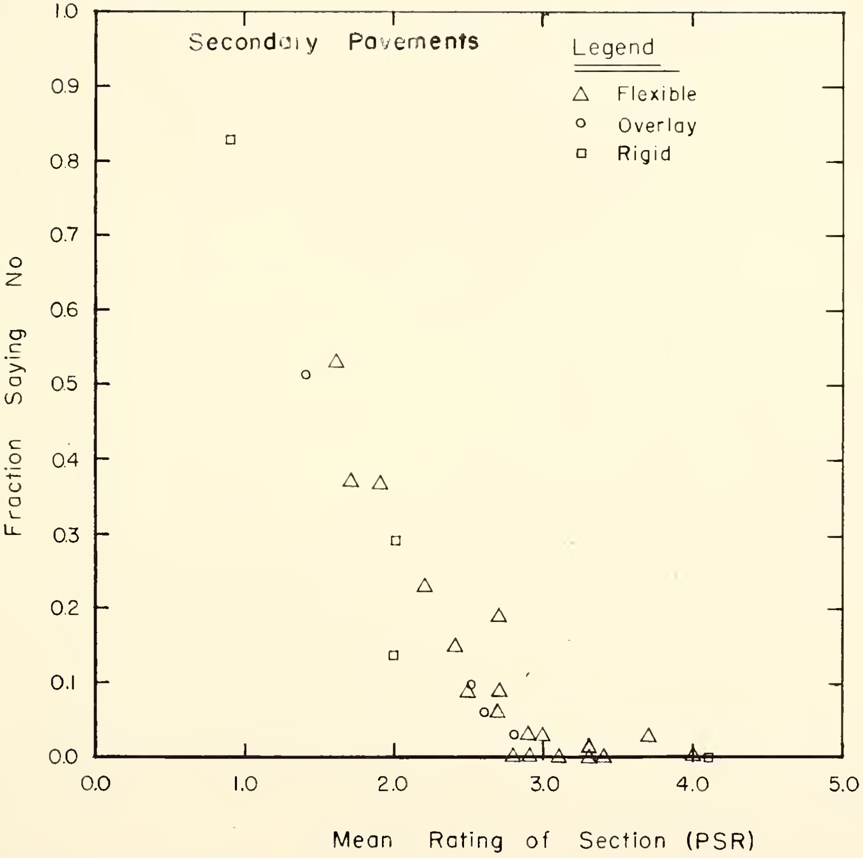


Figure 37 Unacceptability vs mean rating

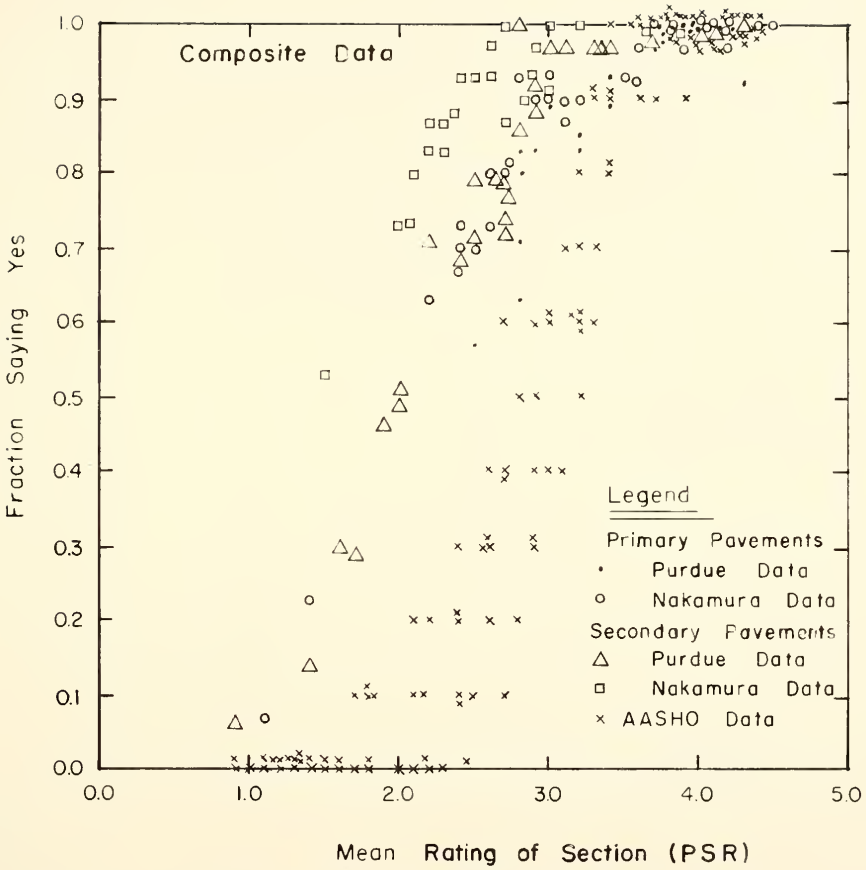


Figure 38 Acceptability vs mean rating

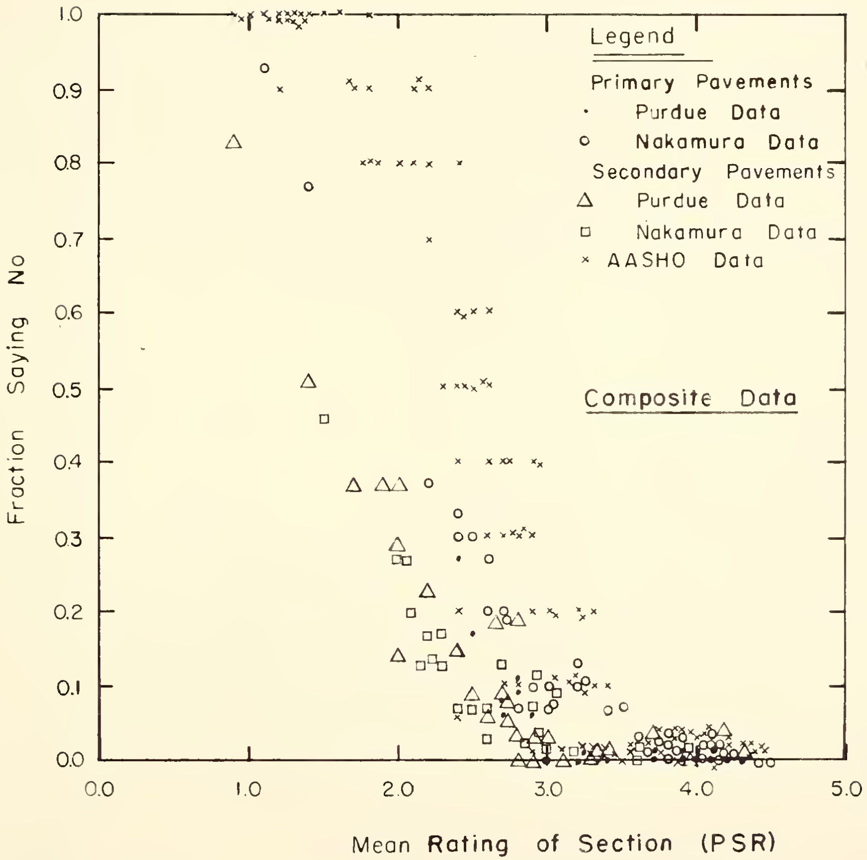


Figure 39 Unacceptability vs mean rating

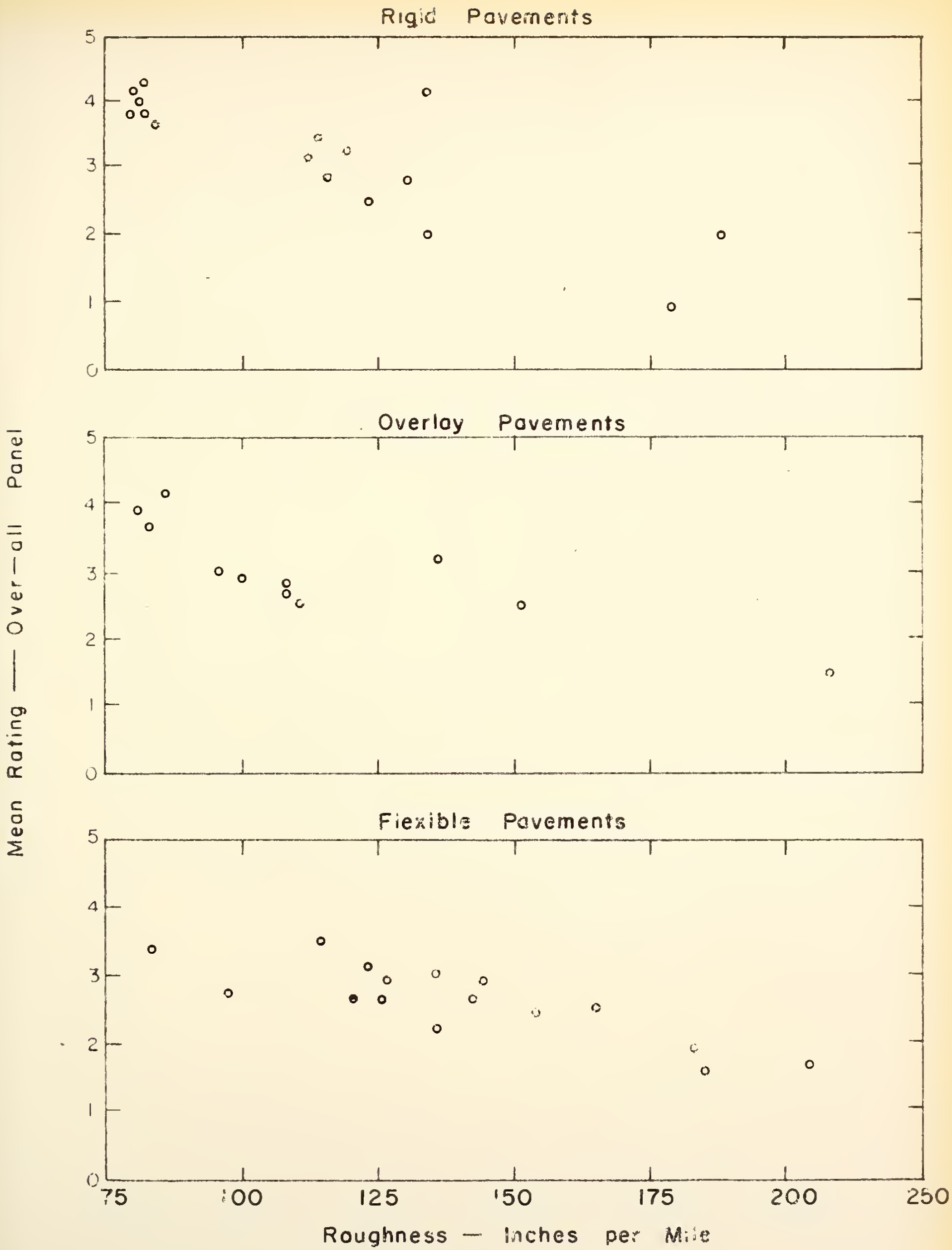


Figure 40 Mean Panel Rating vs. Roughness by Indiana Roughometer

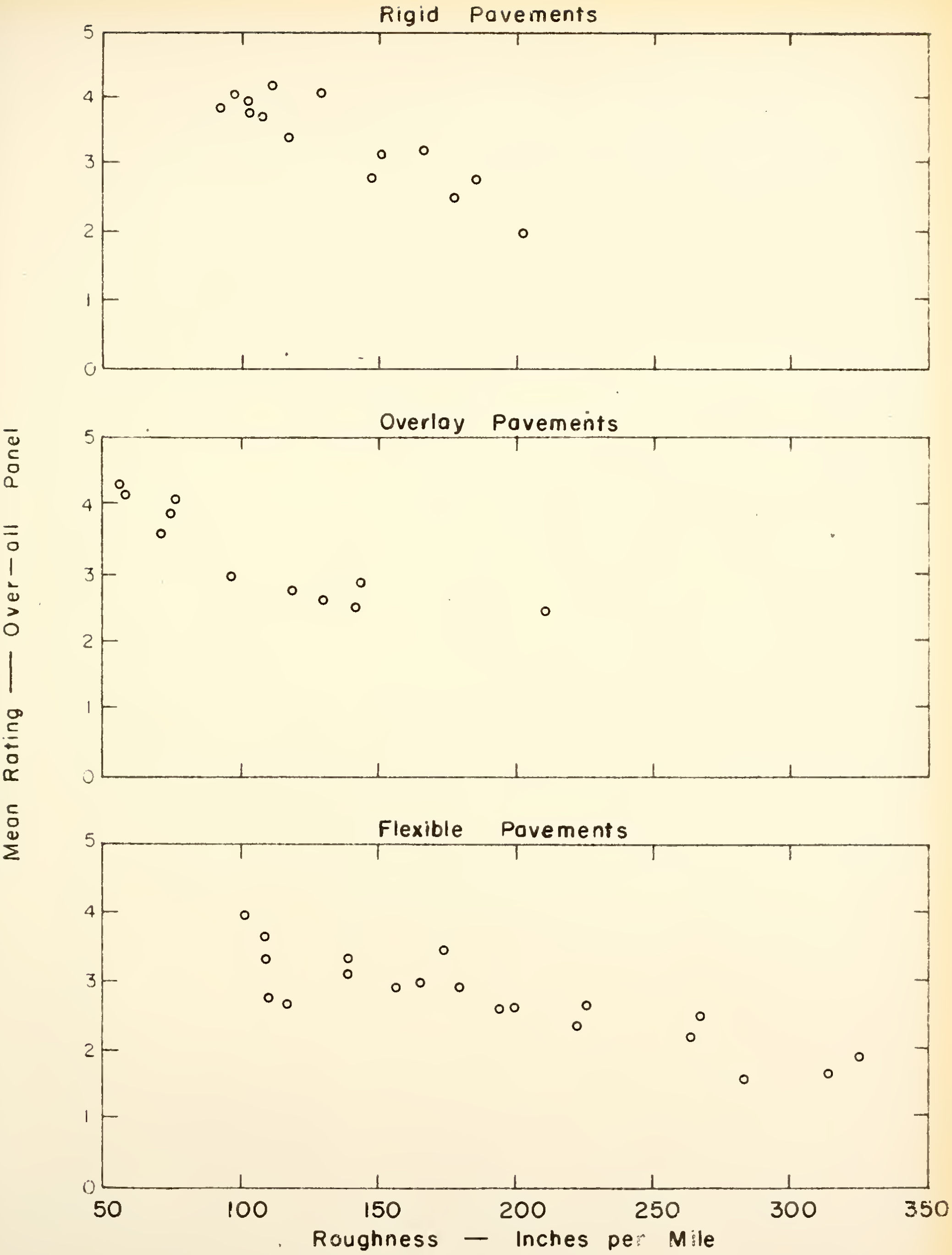


Figure 41 Mean Panel Rating vs Roughness by University of Michigan Profilometer

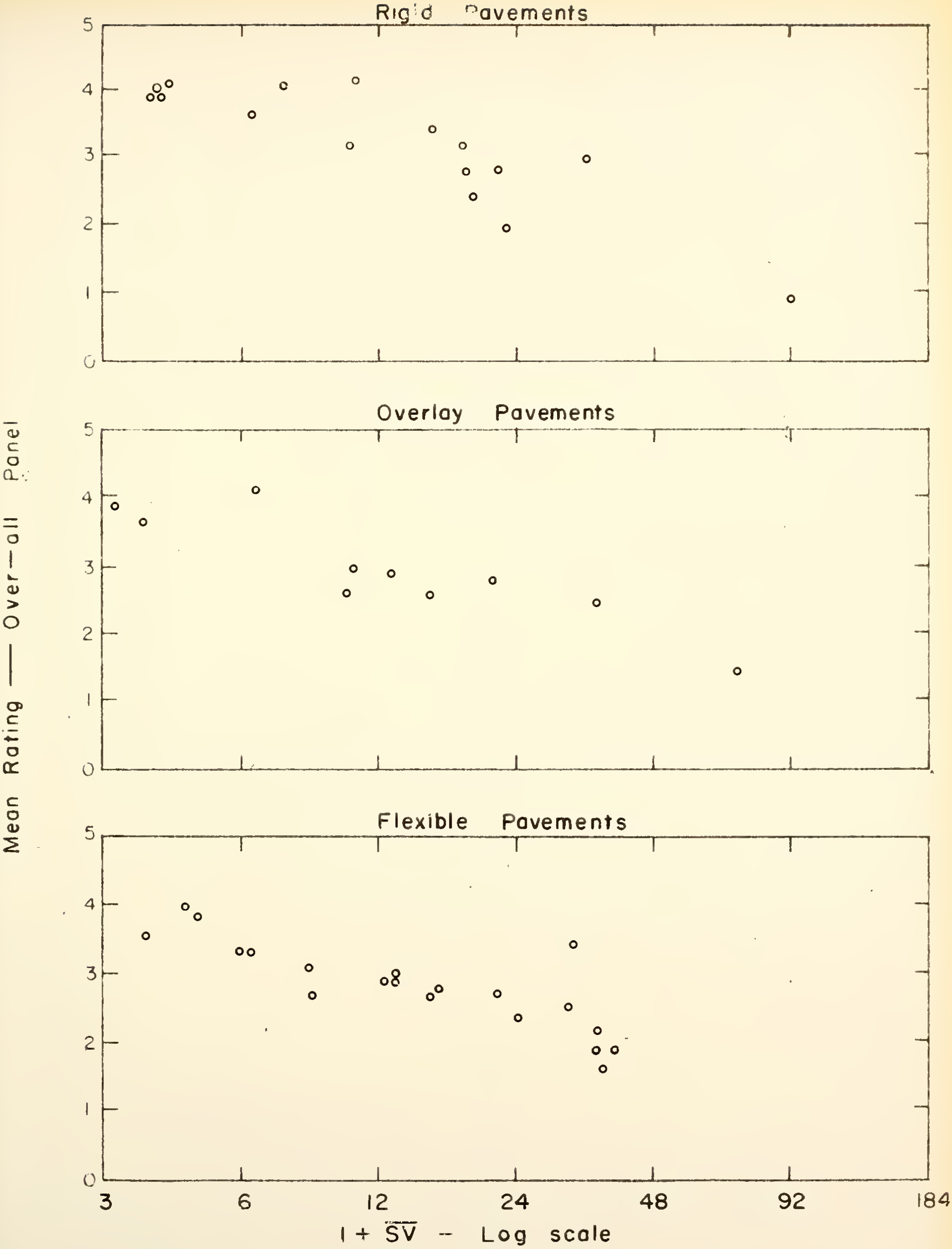


Figure 42 Mean Panel Rating vs. Log (1+ $\overline{SV}$)

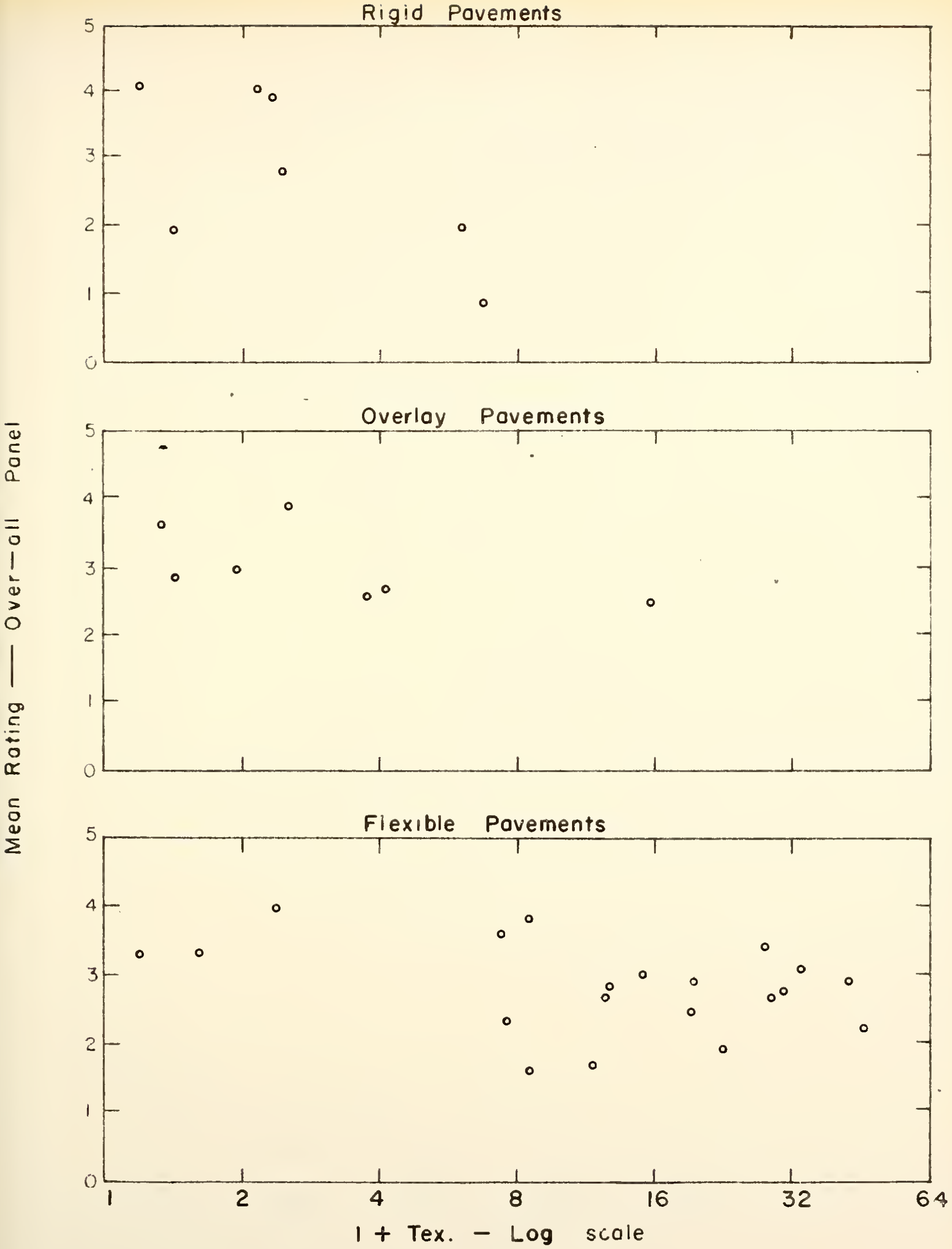


Figure 43 Mean Panel Rating vs. Log (1 + Tex.)

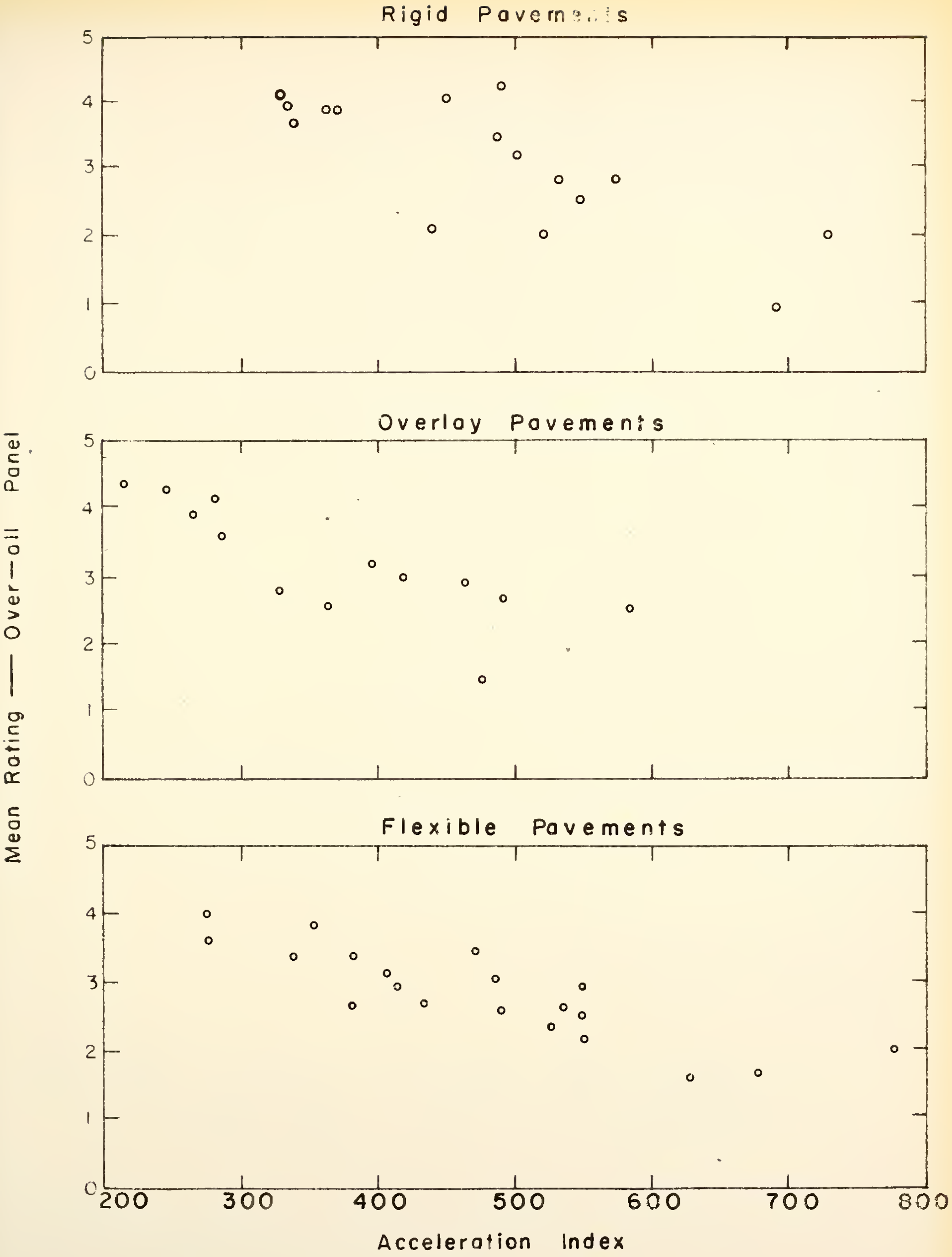


Figure 44. Mean Panel Rating vs. Roughness by Kentucky Accelerometer (40.0 mph.)

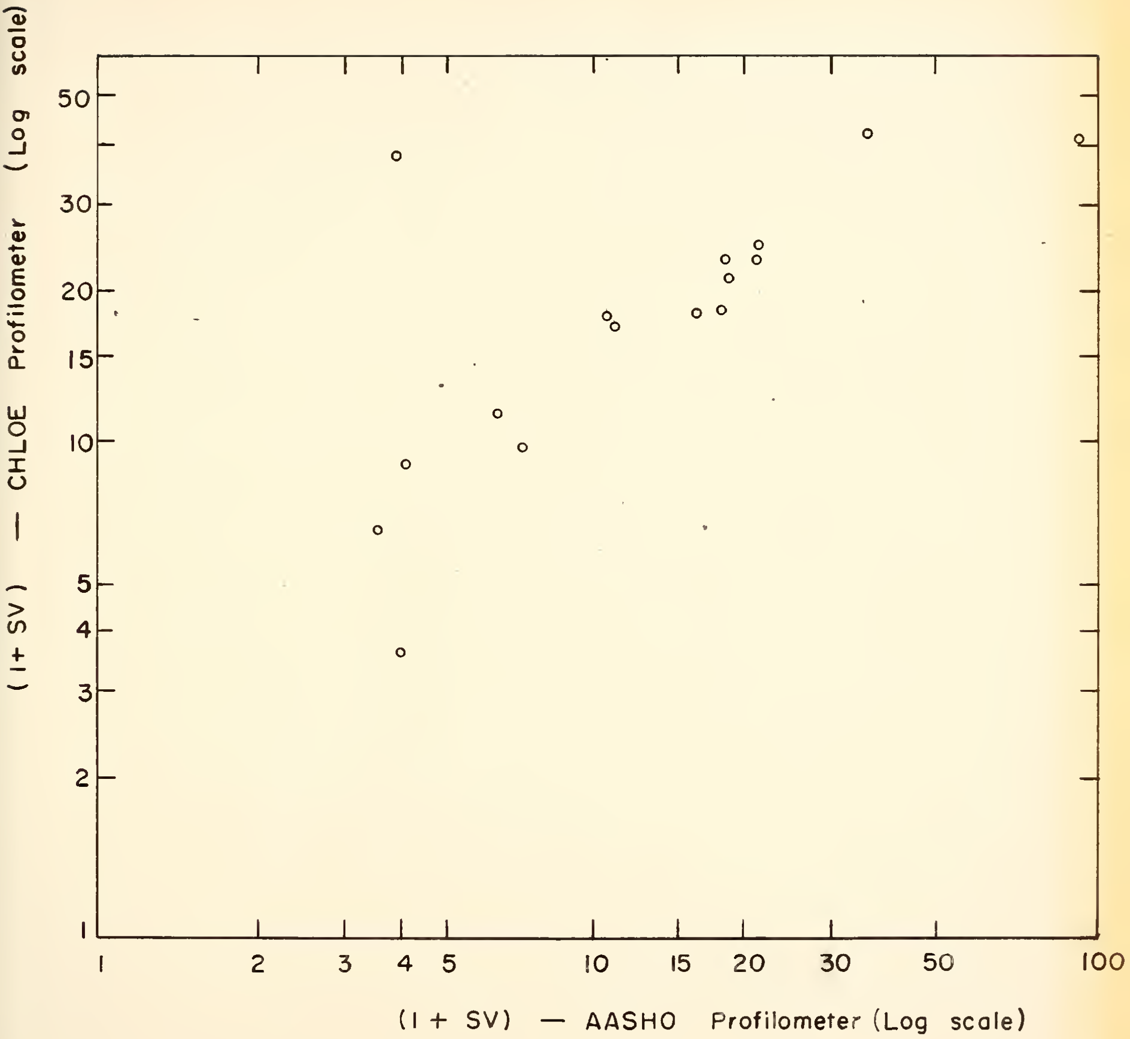


Figure 45 AASHO Profilometer Slope Variance vs CHLOE Slope Variance, Rigid Pavements

APPENDIX B, TABLES

TABLE 1 SUMMARY OF RATINGS

		RIGID PAVEMENT RATINGS															
	RATER NUMBER	PAVEMENT SECTION NUMBER															
		2	4	5	6	9a	10	11	14	33	35	38	45	49	50	61	83
LAY PANEL	1	35	27	42	38	15	38	36	48	23	45	44	29	28	27	28	11
	2	45	32	47	47	12	42	45	47	06	49	40	42	32	39	41	01
	3	38	30	49	48	23	48	37	48	11	41	49	38	31	39	42	06
	4	31	23	42	41	19	39	41	42	23	46	48	39	39	39	42	0.5
	5	37	31	44	42	11	44	31	32	29	38	31	32	29	23	31	08
	6	29	19	45	40	29	40	30	45	27	46	46	25	16	30	34	04
	7	38	24	45	40	13	43	41	49	23	46	47	40	33	31	33	07
	8	32	17	46	47	15	46	45	47	1.5	46	48	32	36	28	43	07
	9	40	36	45	46	27	38	40	48	28	50	48	40	38	38	40	16
	10	29	30	43	41	1.8	40	41	30	29	46	40	42	29	30	32	08
	AVERAGE	33	27	45	43	18	42	39	44	21	45	44	36	31	32	37	0.73
HRB COM-MITTEE PANEL	1	27	19	33	40	16	41	19	39	20	42	42	30	20	21	21	08
	2	34	31	35	34	17	39	38	38	19	38	37	27	19	20	22	07
	3	36	26	39	39	30	42	30	45	20	40	*37 41	30	27	28	27	1.7
	4	30	15	35	3.0	1.0	35	33	30	10	34	30	15	16	20	33	05
	5	36	28	38	42	27	48	42	42	17	42	38	38	28	27	38	12
	6	31	22	35	36	28	38	40	41	12	41	38	3.5	29	30	38	08
	7	32	30	37	37	27	39	37	42	25	40	40	40	30	30	35	15
	8	27	18	34	32	1.7	34	29	40	19	33	30	28	23	24	29	10
	9	28	20	33	33	26	35	39	40	30	42	38	35	30	28	32	10
	10	35	30	40	39	30	40	35	41	33	41	41	36	35	32	34	17
	11	23	21	32	30	12	31	30	26	17	39	39	28	17	17	23	0.7
	12	31	28	42	40	25	41	47	43	23	46	41	39	39	36	41	14
	13	35	29	38	38	19	43	42	42	20	40	*34 30	29	36	30	37	05
	14	32	19	42	43	19	41	42	41	18	47	29	27	21	17	21	0.1
	15	30	21	41	40	20	40	39	38	26	41	42	38	30	33	37	07
	16	32	26	34	37	19	37	35	34	13	40	*33 38	19	20	23	29	09
	17	25	18	32	32	17	32	32	37	15	46	42	23	22	21	29	02
	18	25	18	29	31	22	36	32	46	27	41	4.5	31	25	29	32	05
	19	25	20	40	45	1.6	40	35	40	25	45	40	40	36	30	45	15
	AVERAGE	30	23	36	37	21	39	36	39	20	41	*39 38	31	26	26	32	09
AASHO PANEL	1	30	29	44	32	21	44	32	38	27	41	*42 42	29	28	30	3.5	05
	2	29	22	41	42	18	46	38	43	15	42	*44 40	31	25	25	35	02
	3	30	25	40	41	10	31	41	40	09	40	36	22	21	22	32	08
	4	37	26	42	35	30	39	40	43	20	41	*44 40	21	21	23	36	09
	5	28	22	40	38	27	40	38	39	19	40	37	32	32	30	39	20
	6	39	3.1	38	36	29	40	35	42	25	41	45	35	32	40	43	17
	AVERAGE	32	26	41	37	23	40	37	41	19	41	*41 40	28	27	28	37	10
PROFESSIONAL PANEL	AVERAGE	30	24	37	37	2.1	39	36	39	2.0	41	39	30	26	26	33	09
OVER-ALL PANEL	AVERAGE	32	25	39	39	2.0	40	37	41	20	42	41	3.2	28	28	34	09

		FLEXIBLE PAVEMENT RATINGS																			
	RATER NUMBER	PAVEMENT SECTION NUMBER																			
		13	15	16	17	22	24	25	27	29	30	31	36	37	44	54	55	57	80	86	99
LAY PANEL	1	35	38	39	33	35	31	31	32	32	39	39	47	37	29	22	29	38	37	42	
	2	16	22	23	16	08	18	13	16	10	17	32	41	18	12	09	15	19	22	39	
	3	36	40	40	36	20	38	38	37	39	38	49	48	33	38	13	39	41	34	45	
	4	31	31	31	32	11	37	28	34	32	23	41	39	35	32	19	29	33	26	36	
	5	31	36	34	33	29	31	29	31	31	32	32	48	49	32	31	37	31	31	48	
	6	32	35	30	27	17	24	19	32	34	34	46	46	35	27	12	22	33	33	42	
	7	37	46	44	32	30	—	35	32	35	43	40	48	40	25	18	22	30	30	42	
	8	28	36	32	34	28	31	18	31	36	35	43	46	32	22	11	23	27	26	48	
	9	38	42	40	39	34	39	34	36	38	44	48	48	40	30	29	35	40	38	46	
	10	29	31	40	27	21	22	15	32	30	28	45	46	46	30	20	21	31	25	34	
	AVERAGE	31	36	35	31	23	30	26	31	32	33	42	46	3.7	28	18	27	32	30	42	
HRB COM-MITTEE PANEL	1	23	20	20	23	08	20	18	22	21	20	32	34	29	18	17	19	19	25	28	13
	2	27	34	35	36	17	32	22	29	30	23	26	39	34	19	14	22	19	29	28	14
	3	30	27	25	25	10	28	12	19	25	19	37	35	30	23	10	17	22	31	30	*25 13
	4	20	22	20	20	08	24	20	13	27	10	35	34	23	30	10	20	15	25	30	10
	5	28	42	42	28	1.7	32	17	32	43	28	38	44	42	28	18	22	33	28	43	17
	6	28	37	32	28	24	32	30	28	36	28	25	41	38	29	20	25	28	30	39	16
	7	32	35	33	35	28	30	30	30	30	30	41	37	34	25	23	30	25	32	35	25
	8	31	31	33	29	20	29	19	29	32	29	32	32	29	23	20	26	26	27	37	1.9
	9	30	31	32	30	23	32	25	30	32	31	42	38	36	25	22	20	32	28	43	30
	10	36	38	40	35	32	34	30	30	30	30	42	44	34	29	23	30	31	35	43	21
	11	36	29	35	30	17	28	28	25	34	31	41	41	30	22	23	27	33	23	40	21
	12	29	38	37	26	09	21	17	27	31	27	35	38	29	26	19	29	23	28	35	18
	13	27	35	28	33	14	29	14	17	30	14	2.8	34	33	18	12	20	19	20	13	*08 07
	14	28	31	32	29	15	24	17	21	29	22	42	42	33	19	18	23	24	22	39	18
	15	36	37	37	30	29	40	36	39	30	28	42	40	39	31	22	30	29	33	40	21
	16	30	32	30	30	21	31	25	21	32	20	35	35	32	28	15	19	20	22	31	*08 18
	17	22	32	29	26	06	25	14	24	28	25	35	44	32	14	06	15	18	23	35	14
	18	25	29	38	36	17	22	15	28	37	28	32	36	28	22	16	25	28	19	28	11
	19	30	24	30	20	20	20	15	25	26	25	30	36	25	25	20	25	30	20	35	10
	AVERAGE	29	32	32	29	18	28	21	26	31	25	35	38	32	24	17	23	25	26	34	*17 16
AASHO PANEL	1	33	37	31	32	18	32	26	33	39	29	41	39	40	30	22	31	36	33	43	*21 13
	2	22	29	35	31	11	30	20	26	34	28	45	39	29	19	19	22	21	24	41	*13 17
	3	30	33	30	29	09	27	13	20	30	22	41	39	32	20	13	25	23	26	40	—
	4	20	28	28	22	08	20	14	10	21	15	35	41	37	20	09	11	20	20	35	*20 14
	5	28	38	33	29	18	29	19	18	29	20	37	30	30	25	20	24	24	34	38	14
	6	33	32	29	32	22	30	30	27	32	28	32	35	37	23	18	19	23	23	32	16
	AVERAGE	28	32	31	29	14	28	20	22	31	24	39	37	34	23	17	22	25	28	38	*17 15
PROFESSIONAL PANEL	AVERAGE	29	32	32	29	17	28	21	25	31	25	36	38	32	24	17	23	25	26	35	1.7
OVER-ALL PANEL	AVERAGE	29	33	33	30	19	29	22	27	31	27	38	40	34	25	17	24	27	27	37	16

		OVERLAY PAVEMENT RATINGS												
	RATER NUMBER	PAVEMENT SECTION NUMBER												
		8	9	20	41	42	43	46	47	51	53	58	59	85
LAY PANEL	1	44	45	27	44	39	25	27	45	29	29	27	28	[illegible]
	2	45	44	22	41	40	28	29	42	22	26	23	2[illegible]	0[illegible]
	3	46	22	25	5.0	44	24	33	45	23	40	39	28	04
	4	41	38	23	46	45	38	41	47	33	22	37	33	09
	5	47	32	31	49	47	28	32	41	31	29	27	32	
	6	43	35	19	44	40	30	32	43	31	26	32	3	
	7	40	43	29	45	48	30	32	45	31	22	29	24	0[illegible]
	8	39	32	19	46	48	28	39	38	06	26	28	29	3[illegible]
	9	47	43	38	46	49	40	41	46	36	28	35	38	8
	10	40	42	20	48	50	39	40	45	24	34	40	4	4
	AVERAGE	43	38	25	46	45	31	36	44	27	28	32	3	10
HRB COM-MITTEE PANEL	1	40	39	26	34	36	31	30	38	20	18	28	2[illegible]	8
	2	41	41	23	31	34	29	23	32	19	21	22	2	2
	3	35	33	27	32	42	29	30	40	32	28	35	[illegible]	9
	4	35	35	20	40	45	30	24	34	10	16	23	20	[illegible]
	5	38	37	18	41	38	28	28	37	16	27	27	28	[illegible]
	6	32	30	26	40	39	22	34	40	23	23	2	20	26
	7	40	40	33	42	45	35	39	45	27	25	29	29	[illegible]
	8	40	35	28	34	38	29	23	36	29	22	27	26	9
	9	42	40	30	43	43	43	35	42	26	15	28	28	[illegible]
	10	40	39	32	41	45	33	37	44	31	28	[illegible]	[illegible]	2[illegible]
	11	44	41	28	35	45	29	29	48	32	[illegible]	[illegible]	[illegible]	6
	12	40	39	33	45	42	26	37	48	31	28	[illegible]	[illegible]	[illegible]
	13	39	37	27	38	41	32	34	42	29	25	32	[illegible]	[illegible]
	14	39	38	23	47	43	22	21	41	[illegible]	19	22	32	9
	15	41	41	32	41	46	31	35	42	35	28	32	29	[illegible]
	16	39	32	31	34	41	29	25	34	24	19	22	24	8
	17	32	32	22	36	35	14	26	36	18	15	16	15	08
	18	32	32	26	38	41	37	27	41	21	23	31	29	0[illegible]
	19	36	25	25	45	45	30	40	44	35	35	25	30	15
	AVERAGE	36	36	27	39	41	29	30	40	25	23	27	26	5
AASHO PANEL	1	41	40	30	41	45	35	28	42	31	32	35	34	8
	2	41	40	32	41	49	34	39	45	29	25	30	2[illegible]	08
	3	40	38	27	40	43	23	26	42	27	24	23	2	08
	4	40	39	30	40	44	29	29	44	25	20	30	28	[illegible]
	5	38	37	29	40	45	40	38	40	23	20	30	30	[illegible]
	6	38	39	34	45	42	36	38	44	30	29	33	29	27
	AVERAGE	40	39	30	41	45	33	33	43	28	25	30	26	5
PROFESSIONAL PANEL	AVERAGE	37	37	28	39	42	30	31	41	26	23	28	26	15
OVER-ALL PANEL	AVERAGE	39	37	27	41	43	30	32	42	26	25	29	28	14

* Section rated twice by same rater

Sheet 1 of 3

Table 2. Key to Column Numbers For Data Tabulation in Table 3.

Column Number	Item	Form of Data
1	Test section number	
2	Pavement type	
3	Cracking plus patching	Sealed + unsealed cracks, ft/1000 ft^2 of pavement plus bituminous patching + Map cracking $ft^2/1000\ ft^2$ of pavement
4	Mean rut depth	Inches
5	Indiana Roughometer	Roughness, inches/mile
6	Illinois Roughometer	Roughness, inches/mile
7	BPR Roughometer	Roughness, inches/mile
8	New York Roughometer	Roughness, inches/mile
9	Tennessee Roughometer	Roughness, inches/mile
10	Michigan Roughometer	Roughness, inches/mile
11	Michigan Roughometer	Acceleration, g's/mile
12	University of Michigan Profilometer	Roughness Index, outer wheel path
13	Kentucky Accelerometer, 40 mph	Acceleration Index, 40 mph
14	Kentucky Accelerometer, 51.5 mph	Acceleration Index, 51.5 mph
15	Kentucky Accelerometer, 60 mph	Acceleration Index, 60 mph
16	AASHO Profilometer	Mean slope variance
17	AASHO Profilometer	1 + mean slope variance
18	CHLOE Profilometer	Mean slope variance
19	CHLOE Profilometer	1 + mean slop variance
20	Texas Texturemeter	Average reading both wheel paths , inches x 10^3

Sheet 2 of 3

Table 2. (Cont'd) Key to Column Numbers For Data Tabulation in Table 3

Column Number	Item	Form of Data
21	South Dakota Texturemeter	Average reading, outer wheel path, inches x 10^3
22	South Dakota Roughometer	Roughness, inches/mile
23	Minnesota Roughometer, Electrical Recorder	Roughness, inches/mile
24	Minnesota Roughometer, Mechanical Recorder	Roughness, inches/mile
25	Mean Over-all Panel rating	
26	Raveling, Minor	Area / 1000 ft^2 of pavement
27	Raveling, intermediate	Area / 1000 ft^2 of pavement
28	Raveling, Major	Area / 1000 ft^2 of pavement
29	Bleeding, Minor	Area / 1000 ft^2 of pavement
30	Bleeding, intermediate	Area / 1000 ft^2 of pavement
31	Bleeding, Major	Area / 1000 ft^2 of pavement
32	Mean rut depth, right wheel path	Inches
33	Mean rut depth, left wheel path	Inches
34	Maximum rut depth	Inches
35	Blowups	Area / 1000 ft^2 of pavement
36	Maximum Longitudinal fault	Inches
37	Number of Longitudinal faults greater than 0.2 inch	
38	Number of longitudinal faults less than 0.2 in.	

Sheet 3 of 3

Table 2. (Cont'd) Key to Column Numbers For Data Tabulation in Table 3

Column Number	Item	Form of Data
39	Average Longitudinal fault	Inches
40	Unsealed cracks	Length / 1000 ft^2 of pavement
41	Number of transverse faults greater than 0.2 inch	
42	Number of transverse faults less than 0.2 inch	
43	Maximum transverse fault	Inches
44	Average transverse fault	Inches
45	Sealed cracks	Length / 1000 ft^2 of pavement
46	Joints	Length / 1000 ft^2 of pavement
47	Bituminous patching	Area / 1000 ft^2 of pavement
48	Right-of-way width	Feet--Measured from pavement edge to ROW line
49	Shoulder width	Feet
50	Length of test section	Feet
51	Width of test section	Feet
52	Has pavement been widened?	Yes or No
53	Highway classification of test section	Primary or secondary
54	Mean HRB Committee Panel rating	
55	Mean AASHO Panel rating	
56	Mean Lay Panel rating	
57	Map cracking	Area / 1000 ft^2 of pavement
58	Purdue Tire Pressure	RMS

TABLE 3 TABULATION OF DATA

SHEET 1 OF 5

SECTION NUMBERS	COLUMN NUMBERS-(SEE TABLE 2 FOR IDENTIFICATION)																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
2	Rigid	29.3	0.000	112	107	117	120	110	231	1088	150	492	538	678	96	10.6	16.19	17.19	0.1	0.0	115	112	112	3.2
4	Rigid	50.2	0.000	124	127	128	125	121	324	1480	179	546	573	690	18.1	19.1	24.49	25.49	1.0	1.0	124	124	124	2.5
5	Rigid	50.5	0.000	83	76	85	72	73	138	685	92	373	382	437	2.8	3.8	6.55	7.55	0.1	0.1	81	80	76	3.9
6	Rigid	25.6	0.000	80	75	78	72	74	146	763	101	360	425	542	3.0	4.0	37.15	38.14	0.4	0.4	81	80	80	3.9
8	Overlay	5.0	0.120	82	67	76	77	72	124	617	73	265	293	328	2.4	3.4	4.13	5.13	2.5	0.9	87	68	68	3.9
9	Overlay	12.5	0.095	84	68	80	68	73	136	692	70	283	321	355	2.7	3.7	6.09	7.09	1.3	0.7	81	80	80	3.7
9a	Rigid	11.8	0.000	134	136	140	133	134	329	1327	203	519	523	587	22.1	23.1	27.21	28.21	6.0	7.1	136	152	144	2.0
10	Rigid	26.4	0.000	82	75	79	71	70	145	819	101	341	395	436	3.0	4.0	2.32	3.32	0.3	0.3	75	89	85	4.0
11	Rigid	25.8	0.000	84	85	93	84	85	177	818	109	417	420	503	5.5	6.5	10.51	11.51	1.0	1.3	89	92	88	3.7
13	Flexible	0.0	0.125	127	111	131	120	121	222	929	156	406	556	745	11.5	12.5	25.85	26.85	41.1	31.3	130	140	124	2.9
14	Rigid	0.8	0.000	110	104	113	110	106	204	1162	128	445	430	508	6.5	7.5	8.79	9.79	1.2	1.4	111	122	117	4.1
15	Flexible	0.0	0.070	84	68	84	91	84	136	653	110	336	432	573	5.0	6.0	8.51	9.51	1.2	0.8	92	80	76	3.3
16	Flexible	0.0	0.080	85	84	90		87	148	835	139	381	472	585	5.2	6.2	9.88	10.88	1.6	0.7	96	88	88	3.3
17	Flexible	0.0	0.040	137	133	140		127	256	1383	165	483	552	716	12.3	13.3	25.09	26.09	14.8	10.9	128	148	140	3.0
20	Overlay	51.2	0.160	109	107	111		104	203	1216	130	491	444	543	9.2	10.2	13.16	14.16	4.0	1.6	118	100	100	2.7
22	Flexible	5.0	0.155	188	185	193	188	189	476	1844	327	755	1182	1572	39.0	40.0	65.80	66.80	21.5	20.9	182	204	188	1.9
24	Flexible	4.3	0.235	145		145	135	137	266	1407	176	545	562	644	12.1	13.1	25.50	26.50	19.1	12.2	134	156	148	2.9
25	Flexible	19.7	0.280	137		137	135	137	329	1091	262	554	770	1106	22.8	23.8	49.26	50.26	45.8	58.6	137	160	140	2.2
27	Flexible	0.0	0.090	126	118	124	128	118	213	907	224	535	760	1016	14.9	15.9	30.38	31.38	29.3	30.8	117	145	123	2.7
29	Flexible	2.6	0.140	123	105	119	111	109	240	957	138	402	466	627	7.6	8.6	24.11	25.11	32.8	26.9	108	140	120	3.1
30	Flexible	0.0	0.140	98	81	92	84	84	166	671	116	380	645	938	7.6	8.6	11.95	12.95	12.4	6.9	87	92	88	2.7
31	Flexible	0.0	0.075	75	68	72	65	68	121	764	109	356	422	515	3.8	4.8	9.98	10.98	8.4	9.6	76	76	72	3.8
33	Rigid	41.7	0.000	188	192	204	198	189	456	2205	301	731	302	849	35.0	36.0	42.73	43.73	1.4	0.4	200	192	188	2.0
35	Rigid	0.0	0.000	82	80	82	79	71	145	859	111	435	459	587	9.8	10.8	16.42	17.42	0.4	0.0	82	84	84	4.2

TABLE 3 TABULATION OF DATA

SHEET 2 OF 5

	COLUMN NUMBERS-(SEE TABLE 2 FOR IDENTIFICATION)																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
SECTION NUMBERS	36	Flexible	0.0	0.165	67	58	63	58	58	106	413	100	275	461	651	3.5	4.5	6.25	7.25	2.3	0.7	69	60	65	4.0
	37	Flexible	1.9	0.050	115	112	112	113	109	226	875	172	472	672	933	31.0	32.0	30.66	31.66	27.8	20.4	122	125	125	3.4
	38	Rigid	26.4	0.000	81	70	78	77	73	141	695	98	325	364	467	3.2	4.2	8.11	9.11	2.1	2.4	80	76	80	4.1
	41	Overlay	0.1	0.120	87	72	80	72	80	139	577	77	281	314	448	5.5	6.5	6.23	7.23	0.7	1.1	80	72	72	4.1
	42	Overlay	0.0	0.065	63	39	51	52	51	86	317	56	217	295	378			4.73	5.73	0.0	0.0	56	40	44	4.3
	43	Overlay	71.6	0.120	96	84	93	99	96	198	936	96	417	426	469	9.7	10.7	16.06	17.06	1.9	1.7	99	88	80	3.0
	44	Flexible	0.0	0.165	166	152	163	156	167	362	1416	266	526	747	1012	30.4	31.4	46.28	47.28	19.3	15.4	155	160	148	2.5
	45	Rigid	19.4	0.0	121	116	116	115	112	277	1230	164	500	552	681	17.8	18.8	15.65	16.65	0.3	0.0	118	120	120	3.2
	46	Overlay	0.6	0.075	136	125	136	96	125	291	1123		395	416	483						0.0	119	128	132	3.2
	47	Overlay	0.0	0.075	70	53	59	59	56	102	472	58	247	233	311	1.3	2.3	4.46	5.46	0.1	0.4	63	56	60	4.2
	49	Rigid	28.2	0.000	131	127	125	121	124	320	1426	185	579	714	786	21.5	22.5	26.21	27.21	0.7	2.3	123	128	128	2.8
	50	Rigid	53.4	0.000	117	111	110	113	112	251	1209	147	531	546	633	18.3	19.3	21.05	22.05	2.5	2.6	112	112	112	2.8
	51	Overlay	98.3	0.215	111	88	101	111	110	234	752	142	360	533	767	14.7	15.7	10.32	11.32	3.7	3.1	109	112	92	2.6
	53	Overlay	26.9	0.095	151	151	155	156	148	329	1852	211	583	668	703	35.5	36.5	20.21	21.21	15.3	15.7	147	156	148	2.5
	54	Flexible	111.2	0.105	205	184	200	196	196	536	1771	313	678	1014	1514	35.6	36.6	66.33	67.33	11.6	16.6	195	208	196	1.7
	55	Flexible	28.1	0.095	155	151	142	140	148	344	1385	221	524	836	1297	23.8	24.8	36.97	36.97	7.6	6.4	139	160	148	2.4
	57	Flexible	0.0	0.125	120	104	115	113	115	218	1125	198	491	733	990	15.5	16.5	20.45	21.45	28.7	21.5	108	132	116	2.7
	58	Overlay	65.5	0.110	100	95	104	120	104	210	1043	144	461	511	514	11.7	12.7	15.15	16.15	1.4	1.1	108	97	86	2.9
	59	Overlay	59.3	0.135	109	102	108	99	107	229	894	118	324	397	465	20.2	21.2	15.75	16.75	1.0	1.2	109	100	86	2.8
	61	Rigid	37.2	0.000	113	108	112	110	105	217	1145	118	488	359	427	14.6	15.6	18.17	19.17	0.8	1.5	104	112	112	3.4
	80	Flexible	0.0	0.345	143	133	150	137	141	322	1073	192	436	633	950	20.9	21.9	38.70	39.70	12.2	7.5	142	156	148	2.7
	83	Rigid	37.2	0.000	179	180	192	204	204	511	2015	328	693	662	722	98.6	99.6	39.82	40.82	6.8	6.8	187	192	176	0.9
	85	Overlay	39.8	0.170	209	224	215	216	226	658	2007	356	472	548	644	73.5	74.5	69.39	70.39	1.1	5.7	250	229	212	1.4
	86	Flexible	15.2	0.185	73	57	68	69	67	112	571	109	279	390	583	4.6	5.6	7.27	8.27	7.0	6.1	70	64	64	3.7
	99	Flexible	34.2	0.065	186	181	194	178	180	447	1922	281	624	920	1213	36.5	37.5	51.51	52.51	8.2	10.4	176	196	188	1.6

TABLE 3 TABULATION OF DATA

SHEET 3 OF 5

SECTION NUMBERS

	COLUMN NUMBERS-(SEE TABLE 2 FOR IDENTIFICATION)																									
1	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
2										0.0	0.0	0	0	0.0	3.8	8	65	0.4	0.140	22.7	26.6	2.8	38	12	1320	12.0
4										0.0	0.6	4	15	0.18	0.0	11	74	0.6	0.130	34.3	20.5	15.9	38	12	1320	12.0
5										0.0	0.0	0	0	0.0	25.4	1	67	0.3	0.030	25.0	25.1	0.1	42	12	1320	12.0
6										0.0	0.0	0	0	0.0	1.5	0	76	0.2	0.010	23.8	26.6	0.3	45	10	1320	12.0
8	0.0	0.0	0.0	0.0	215.0	0.4	.12	.12	0.2	0.4	0.0	0	0	0.0	5.0	0	0	0.0	0.0	0.0		0.0	24	9	1320	11.0
9	0.0	0.0	0.0	136.6	54.1	0.0	.09	.10	0.2	3.3	0.0	0	0	0.0	12.5	0	0	0.0	0.0	0.0		0.0	20	9	1320	11.0
9a										3.0	0.2	0	6	0.13	0.0	9	111	1.1	0.130	5.7	1.5	6.1	21	10	1320	9.0
10										0.0	0.0	0	0	0.0	0.0	0	58	0.0	0.0	26.4	26.4	0.0	39	11	1100	12.0
11										0.0	0.0	0	0	0.0	0.0	5	85	0.4	0.070	25.8	25.8	0.0	42	11	1320	12.0
13	301.7	655.0	0.0	54.9	35.2	5.6	.10	.15	0.3						0.0					0.0		0.0	26	10	1320	10.0
14										0.0	0.0	0	0	0.0	0.0	0	62	0.1	0.006	0.8	26.6	0.0	8	0	1200	12.0
15	0.0	0.0	0.0	0.0	0.0	0.0	.06	.08	0.2						0.0					0.0		0.0	28	8	1320	10.0
16	0.0	0.0	0.0	0.0	0.0	0.0	.07	.09	0.2						0.0					0.0		0.0	16	16	1320	10.0
17	444.0	0.0	555.5	1.6	1.4	7.1	.03	.05	0.2						0.0					0.0		0.0	27	10	1320	9.0
20	928.0	0.0	72.0	0.0	29.0	16.2	.10	.22	0.3	3.7	0.0	0	0	0.0	0.8	0	0	0.0	0.0	46.7		3.7	14	10	1320	11.0
22	0.0	661.0	0.0	259.1	59.9	38.5	.24	.07	0.6						0.0					0.0		5.0	11	11	1320	9.0
24	0.0	975.0	0.0	0.0	21.6	2.5	.21	.26	0.5						3.2					0.0		1.1	26	9	1320	10.0
25	325.2	107.9	6.4	0.0	0.4	0.9	.42	.14	0.7						13.9					0.0		5.8	14	9	1320	10.0
27	0.0	818.0	120.2	0.6	6.4	0.0	.16	.02	0.4						0.0					0.0		0.0	10	4	1200	9.0
29	269.0	24.7	0.0	0.0	0.9	0.3	.17	.11	0.4						2.6					0.0		0.0	15	2	1320	9.0
30	0.0	997.0	2.6	1.4	2.9	0.6	.17	.11	0.3						0.0					0.0		0.0	28	11	1320	10.0
31	0.0	0.0	0.0	0.0	0.2	0.0	.09	.06	0.4						0.0					0.0		0.0	17	8	1320	10.0
33										0.0	0.0	0	0	0.0	3.0	4	11	0.5	0.220	4.5	0.0	34.2	11	3	1320	9.0
35										0.0	0.0	0	0	0.0	0.0	0	58	0.1	0.007	0.0	26.1	0.0	19	0	1100	12.0

TABLE 3 TABULATION OF DATA

SHEET 4 OF 5

		COLUMN NUMBERS-(SEE TABLE 2 FOR IDENTIFICATION)																									
	1	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
SECTION NUMBERS	36	0.0	0.0	0.0	0.0	0.0	0.0	.15	.18	0.3						0.0					0.0		0.0	30	7	1000	11.25
	37	0.0	19.0	92.0	26.8	157.0	4.6	.04	.06	0.2						1.9					0.0		0.0	15	3	1000	10.5
	38										0.0	0.0	0	4	0.0	5.3	0	4	0.1	0.005	20.3	1.5	0.8	30	10	1320	10.0
	41	0.4	0.0	0.0	0.0	0.0	0.0	.09	.15	0.2	0.0	0.0	0	0	0.0	0.0	0	0	0.0	0.0	0.0		0.1	40	10	1320	11.0
	42	0.0	0.0	0.0	0.0	0.0	0.0	.05	.08	0.1	0.0	0.0	0	0	0.0	0.0	0	0	0.0	0.0	0.0		0.0	40	8	1320	12.0
	43	0.0	0.0	0.0	0.0	0.0	0.0	.11	.13	0.2	0.0	0.0	0	0	0.0	0.0	0	166	0.1	0.010	63.6		8.0	24	8	1320	10.0
	44	1000.0	0.0	21.2	111.1	102.8	3.7	.21	.12	0.4						0.0					0.0		0.0	20	10	1320	9.0
	45										0.0	0.0	0	0	0.0	16.7	24	86	0.5	0.160	0.8	25.0	1.9	33	12	1320.	11.0
	46	94.1	0.0	0.0	784.4	210.8	4.8	.06	.09	0.2	0.0	0.0	0	0	0.0	0.0	0	0	0.0	0.0	0.0		0.6	42	11	1320	11.0
	47	0.0	0.0	0.0	182.0	0.0	0.0	.10	.05	0.2	0.0	0.0	0	0	0.0	0.0	0	0	0.0	0.0	0.0		0.0	32	5	1320	11.0
	49										0.0	0.7	3	25	0.14	5.3	19	81	0.6	0.150	15.9	25.8	7.0	32	11	1320	12.0
	50										0.0	0.1	0	8	0.06	0.0	4	49	0.4	0.140	28.0	19.0	27.4	33	11	1320	12.0
	51	0.0	2.5	0.0	0.0	5.1	0.0	.18	.25	0.4	0.0	0.0	0	0	0.0	9.1	0	0	0.0	0.0	47.8		41.4	19	7	1320	11.0
	53	0.0	182.1	273.1	549.2	12.6	10.0	.05	.14	0.3	4.0	0.0	0	0	0.0	19.0	10	32	0.4	0.150	0.0		7.9	19	6	1320	11.0
	54	0.0	137.7	366.0	0.0	90.6	296.0	.17	.04	0.8						0.0					0.0		111.2	20	7	1320	10.0
	55	0.0	378.0	0.0	0.0	338.0	0.0	.16	.03	0.8						11.4					0.0		16.7	20	7	1320	10.0
	57	7.3	177.6	505.7	47.1	17.9	6.4	.14	.11	0.5						0.0					0.0		0.0	20	7	1320	10.0
	58	0.0	0.0	0.0	0.0	0.0	0.0	.13	.09	0.3	0.0	0.0	0	0	0.0	0.0	0	80	0.2	0.002	60.0		5.5	26	7	1000	10.0
	59	0.0	0.5	0.0	0.0	0.0	0.0	.11	.16	0.3	6.7	0.0	0	0	0.0	56.6	0	144	0.2	0.465	0.0		2.7	18	8	1500	10.0
	61										0.0	0.1	0	4	0.02	0.0	20	62	0.5	0.170	36.5	25.8	0.7	38	11	1320	12.0
	80	569.0	0.0	0.0	0.0	431.0	0.0	.41	.28	0.6						0.0					0.0		0.0	27	14	1320	11.0
	83										6.4	0.0	0	0	0.0	22.7	1	5	0.3	0.170	1.8	0.0	12.7	30	11	1320	9.0
	85	0.0	0.0	0.0	0.0	3.6	0.0	.19	.15	0.5	0.6	0.0	0	0	0.0	6.8	0	0	0.0	0.0	0.0		33.0	20	6	1000	11.0
	86	0.0	0.0	0.0	0.0	0.0	0.0	.24	.13	0.4						15.2					0.0		0.0	20	7	1320	10.0
	99	0.0	0.0	19.3	0.0	947.0	0.0	.12	.01	0.7						0.0					0.0		34.2	9	3	1320	9.0

TABLE 3 TABULATION OF DATA

SHEET 5 OF 5

COLUMN NUMBERS-(SEE TABLE 2 FOR IDENTIFICATION)

SECTION NUMBERS

1	52	53	54	55	56	57	58	1	52	53	54	55	56	57	58
2	NO	PRIMARY	3.0	3.2	3.5			37	NO	SECONDARY	3.2	3.4	3.7	0.0	
4	NO	PRIMARY	2.3	2.6	2.7			38	NO	SECONDARY	3.8	4.0	4.4		
5	NO	PRIMARY	3.6	4.1	4.5			41	NO	PRIMARY	3.9	4.1	4.6		0.75
6	NO	PRIMARY	3.7	3.7	4.3			42	NO	PRIMARY	4.1	4.5	4.5		
8	NO	PRIMARY	3.6	4.0	4.3			43	NO	PRIMARY	2.9	3.3	3.1		0.71
9	NO	PRIMARY	3.6	3.9	3.8			44	NO	SECONDARY	2.4	2.3	2.8	2.8	
9a	NO	SECONDARY	2.1	2.3	1.8			45	NO	PRIMARY	3.1	2.8	3.6		
10	NO	PRIMARY	3.9	4.0	4.2		0.51	46	NO	PRIMARY	3.0	3.3	3.6		
11	NO	PRIMARY	3.6	3.7	3.9			47	NO	PRIMARY	4.0	4.3	4.4		0.59
13	NO	SECONDARY	2.9	2.8	3.1	0.0		49	NO	PRIMARY	2.6	2.7	3.1		
14	NO	PRIMARY	3.9	4.1	4.4			50	NO	PRIMARY	2.6	2.8	3.2		
15	NO	SECONDARY	3.2	3.2	3.6	0.0		51	NO	SECONDARY	2.5	2.8	2.7		
16	NO	SECONDARY	3.2	3.1	3.5	0.6		53	YES	SECONDARY	2.3	2.5	2.8		0.90
17	NO	SECONDARY	2.9	2.9	3.1	34.1	0.77	54	NO	SECONDARY	1.7	1.7	1.8	0.0	
20	YES	PRIMARY	2.7	3.0	2.5			55	NO	SECONDARY	2.3	2.2	2.7	143.9	
22	NO	SECONDARY	1.8	1.4	2.3	0.0		57	NO	SECONDARY	2.5	2.5	3.2	272.0	
24	NO	SECONDARY	2.8	2.8	3.0	577.0		58	NO	PRIMARY	2.7	3.0	3.2		
25	NO	SECONDARY	2.1	2.0	2.6	0.0		59	NO	SECONDARY	2.6	2.8	3.1		
27	NO	SECONDARY	2.6	2.2	3.1	0.0		61	NO	PRIMARY	3.2	3.7	3.7		
29	NO	SECONDARY	3.1	3.1	3.2	0.0		80	NO	PRIMARY	2.6	2.8	3.0	0.0	1.13
30	NO	SECONDARY	2.5	2.4	3.3	0.0		83	YES	SECONDARY	0.9	1.0	0.7		3.41
31	NO	SECONDARY	3.5	3.9	4.2			85	YES	SECONDARY	1.5	1.5	1.0		1.77
33	NO	SECONDARY	2.0	1.9	2.1		1.64	86	NO	SECONDARY	3.4	3.8	4.2	20.4	0.47
35	NO	PRIMARY	4.1	4.1	4.5		0.32	99	NO	SECONDARY	1.6	1.6		7.9	
36	NO	SECONDARY	3.8	3.7	4.6	0.0	0.54								

Table 4. Key to Identification of Row Numbers for Matrix in Table 5 (Rigid Pavements)

Identification Number	Item	Identification Number	Item
1	Cracking plus patching	20	Mean Over-all Panel rating
2	Indiana Roughometer	21	Blowups
3	Illinois Roughometer	22	Maximum Longitudinal fault
4	BPR Roughometer	23	Number of Longitudinal faults greater than 0.2 in.
5	New York Roughometer	24	Number of longitudinal faults less than 0.2 in.
6	Tennessee Roughometer	25	Average Longitudinal fault
7	Michigan Roughometer (Roughness)	26	Unsealed cracks
8	Michigan Roughometer (Acceleration)	27	Number of transverse faults greater than 0.2in.
9	Michigan Profilometer	28	Number of transverse faults less than 0.2 in.
10	Kentucky Accelerometer, 40 mph	29	Maximum transverse fault
11	Kentucky Accelerometer, 51.5 mph	30	Average transverse fault
12	Kentucky Accelerometer, 60 mph	31	Sealed cracks
13	AASHO Profilometer, SV	32	Joints
14	CHLOE Profilometer, SV	33	Bituminous patching
15	Texas Texturemeter	34	Right-of-way width
16	South Dakota Texturemeter	35	Shoulder width
17	South Dakota Roughometer	36	Width of test section
18	Minnesota Roughometer, Electrical Recorder	37	Mean HRB Committee Panel Rating
19	Minnesota Roughometer, Mechanical Recorder	38	Mean AASHO Panel Rating
		39	Mean Lay Panel Rating
		40	Root mean square force

Table 5 Correlation Matrix Print Out Sheet, **Rigid Pavements** Sheet 1 of 4

Vertical Row Numbers	Horizontal Row Numbers										
	1 12 23 34	2 13 24 35	3 14 25 36	4 15 26 37	5 16 27 38	6 17 28 39	7 18 29 40	8 19 30 41	9 20 31 42	10 21 32 43	11 22 33 44
ROW 1	1.00000 0.17584 0.27659 0.47573	0.25615 0.20909 0.24553 0.57832	0.24534 0.21945 0.21287 0.01697	0.23804 0.00739 0.27895 -0.42620	0.23416 -0.02605 0.08034 -0.32756	0.24981 0.22786 -0.27591 -0.28220	0.26958 0.14813 0.15092 0.69101	0.25343 0.16401 0.43477	0.21134 -0.36564 0.61723	0.28761 -0.00056 -0.14101	0.23421 0.22275 0.56704
ROW 2	0.25615 0.78276 0.15241 -0.46110	1.00000 0.79586 0.16884 -0.08167	0.99582 0.73671 0.23139 -0.67763	0.98956 0.55403 0.21128 -0.89635	0.98751 0.47058 0.23885 -0.91215	0.98729 0.99093 -0.33802 -0.88828	0.97742 0.98378 0.47708 0.82306	0.98660 0.99189 0.82991	0.96858 -0.90308 -0.41245	0.96520 0.55423 -0.61678	0.86121 0.20300 0.72224
ROW 3	0.24534 0.78895 0.17507 -0.45577	0.99582 0.79090 0.16776 -0.09216	1.00000 0.75309 0.25876 -0.67352	0.99308 0.55661 0.18160 -0.90089	0.98598 0.47066 0.23173 -0.91780	0.98611 0.99241 -0.29875 -0.90106	0.98155 0.98654 0.50622 0.81577	0.98930 0.99282 0.82853	0.97239 -0.91184 -0.40798	0.97115 0.55667 -0.61062	0.86521 0.21899 0.72407
ROW 4	0.23804 0.75244 0.11232 -0.46791	0.98956 0.79830 0.08771 -0.11478	0.99308 0.73285 0.18159 -0.70175	1.00000 0.56458 0.21154 -0.88443	0.99166 0.46615 0.16184 -0.89641	0.98872 0.99694 -0.35224 -0.88922	0.96971 0.98702 0.45895 0.82474	0.97808 0.98798 0.79593	0.97327 -0.89568 -0.41852	0.95188 0.57658 -0.63890	0.83461 0.14226 0.70153
ROW 5	0.23416 0.75715 0.10039 -0.45175	0.98751 0.64159 0.08415 -0.09610	0.98598 0.73198 0.16131 -0.69260	0.99166 0.59443 0.22281 -0.89907	1.00000 0.49317 0.16041 -0.91173	0.99518 0.99207 -0.39633 -0.89914	0.97432 0.98074 0.41770 0.87494	0.97472 0.98176 0.79811	0.97688 -0.90633 -0.42154	0.95336 0.61663 -0.63856	0.82447 0.12635 0.69015
ROW 6	0.24981 0.74899 0.11721 -0.41788	0.98729 0.86246 0.11790 -0.05164	0.98611 0.74647 0.19235 -0.69846	0.98872 0.63157 0.25067 -0.92185	0.99518 0.54187 0.16470 -0.93225	1.00000 0.98894 -0.36654 -0.92114	0.98499 0.98439 0.44170 0.89910	0.97122 0.98049 0.79311	0.98276 -0.92873 -0.41274	0.94970 0.65330 -0.64334	0.82620 0.15621 0.68119
ROW 7	0.26958 0.79441 0.24268 -0.36044	0.97742 0.85812 0.22732 0.01952	0.98155 0.75565 0.31255 -0.68062	0.96971 0.62421 0.25180 -0.94827	0.97432 0.54830 0.23619 -0.96522	0.98499 0.97135 -0.29663 -0.94479	1.00000 0.96914 0.50185 0.90580	0.97095 0.96882 0.80788	0.98416 -0.95464 -0.38853	0.95249 0.64709 -0.62711	0.86225 0.27834 0.68141
ROW 8	0.25343 0.80752 0.23833 -0.47047	0.98660 0.77900 0.20315 -0.13957	0.98930 0.74760 0.26490 -0.61490	0.97808 0.49285 0.13809 -0.86977	0.97472 0.40258 0.21610 -0.89279	0.97122 0.97906 -0.34740 -0.86364	0.97095 0.96863 0.42366 0.80540	1.00000 0.98009 0.80061	0.96018 -0.87690 -0.39007	0.97132 0.50275 -0.56747	0.87962 0.25633 0.74980
ROW 9	0.21134 0.78748 0.13368 -0.41599	0.96858 0.87583 0.11076 -0.06718	0.97239 0.76962 0.19305 -0.74173	0.97327 0.63707 0.27739 -0.91557	0.97688 0.53387 0.10682 -0.94665	0.98276 0.97798 -0.38233 -0.92709	0.98416 0.96868 0.41093 0.90324	0.96018 0.96232 0.73966	1.00000 -0.92897 -0.47322	0.93207 0.67718 -0.67970	0.85901 0.15798 0.67367
ROW 10	0.28761 0.84828 0.24608 -0.41260	0.96520 0.76643 0.25671 -0.10021	0.97115 0.74732 0.29129 -0.53103	0.95188 0.45965 0.15344 -0.87678	0.95336 0.38565 0.29105 -0.89331	0.94970 0.95330 -0.27085 -0.85383	0.95249 0.93317 0.48898 0.78940	0.97132 0.94809 0.86568	0.93207 -0.88016 -0.36023	1.00000 0.47412 -0.48514	0.90211 0.29231 0.75395
ROW 11	0.23421 0.97070 0.36754 -0.37347	0.86121 0.60941 0.38353 -0.08585	0.86521 0.72592 0.34664 -0.46692	0.83461 0.28990 0.12890 -0.76529	0.82447 0.23153 0.24817 -0.83259	0.82620 0.85466 -0.21159 -0.73391	0.86225 0.81194 0.42552 0.64425	0.87962 0.84031 0.74061	0.85901 -0.76771 -0.40347	0.90211 0.30277 -0.41849	1.00000 0.40128 0.74385
ROW 12	0.17584 1.00000 0.39998 -0.33075	0.78276 0.54228 0.37916 -0.08191	0.78895 0.71129 0.34709 -0.38731	0.75244 0.20864 0.09431 -0.70191	0.75715 0.14553 0.29115 -0.78639	0.74899 0.78235 -0.16168 -0.66139	0.79441 0.72188 0.40497 0.55878	0.80752 0.76109 0.71293	0.78748 -0.70039 -0.40615	0.84828 0.23174 -0.33769	0.97070 0.40458 0.68517

Table 5 Correlation Matrix Print Out Sheet, **Rigid Pavements** Sheet 2 of 4

Vertical Row Numbers	Horizontal Row Numbers										
	1 12 23 34	2 13 24 35	3 14 25 36	4 15 26 37	5 16 27 38	6 17 28 39	7 18 29 40	8 19 30 41	9 20 31 42	10 21 32 43	11 22 33 44
ROW 13	0.20909 0.54228 0.02433 -0.20622	0.79586 1.00000 0.01536 0.05850	0.79090 0.64486 0.04447 -0.63335	0.79830 0.74180 0.46085 -0.85333	0.84159 0.65010 0.00977 -0.85608	0.86246 0.79739 -0.46076 -0.85982	0.85812 0.80785 0.18896 0.98813	0.77900 0.77132 0.56647	0.87583 -0.85681 -0.40085	0.76643 0.87610 -0.59067	0.60941 0.03724 0.43539
ROW 14	0.21945 0.71129 0.16329 -0.19673	0.73671 0.64486 0.16703 -0.06091	0.75309 1.00000 0.23448 -0.53221	0.73285 0.45563 0.05025 -0.73724	0.73198 0.38267 0.07258 -0.77606	0.74647 0.75289 -0.21178 -0.72742	0.75565 0.71188 0.40560 0.78311	0.74760 0.72371 0.59959	0.76962 -0.74358 -0.26139	0.74732 0.47070 -0.49843	0.72592 0.20551 0.61269
ROW 15	0.00739 0.20664 -0.13390 -0.28306	0.55403 0.74180 0.01339 0.07718	0.55661 0.45563 0.21440 -0.75752	0.56458 1.00000 0.19762 -0.71546	0.59443 0.96515 -0.15133 -0.68160	0.63157 0.56463 -0.22128 -0.78572	0.62421 0.62869 0.40232 0.96327	0.49285 0.58081 0.31281	0.63707 -0.73786 -0.35812	0.45965 0.90154 -0.76952	0.28990 -0.00705 0.28524
ROW 16	-0.02605 0.14553 -0.02913 -0.20934	0.47058 0.65010 0.18993 0.16277	0.47066 0.38267 0.34390 -0.65371	0.46615 0.96515 0.13839 -0.66224	0.49317 1.00000 -0.03317 -0.60854	0.54187 0.46065 -0.07681 -0.72741	0.54830 0.54488 0.48031 0.93004	0.40258 0.50020 0.28849	0.53387 -0.67888 -0.26618	0.38565 0.84663 -0.67216	0.23153 0.15058 0.17037
ROW 17	0.22786 0.78235 0.10506 -0.48156	0.99093 0.79739 0.08777 -0.12563	0.99241 0.75289 0.17420 -0.71249	0.99694 0.56463 0.21405 -0.88334	0.99207 0.46065 0.15370 -0.90634	0.98694 1.00000 -0.36487 -0.88485	0.97135 0.98379 0.44784 0.81510	0.97906 0.98777 0.79132	0.97798 -0.89399 -0.44842	0.95330 0.56902 -0.65022	0.85466 0.13354 0.72000
ROW 18	0.14813 0.72188 0.09619 -0.50637	0.98378 0.80785 0.10089 -0.12816	0.98654 0.71138 0.21567 -0.71327	0.98702 0.62869 0.17990 -0.88358	0.98074 0.54468 0.17472 -0.90036	0.98433 0.98379 -0.28392 -0.96672	0.96914 1.00000 0.48483 0.86342	0.96863 0.99442 0.76667	0.96868 -0.90268 -0.47243	0.93317 0.62887 -0.63301	0.81194 0.15388 0.65390
ROW 19	0.16401 0.76109 0.13385 -0.51727	0.99189 0.77132 0.14535 -0.13282	0.99282 0.72371 0.24419 -0.70012	0.98798 0.58081 0.13837 -0.87617	0.98176 0.50020 0.22518 -0.89730	0.98049 0.98777 -0.28790 -0.89065	0.96882 0.99442 0.50416 0.81236	0.98009 1.00000 0.80159	0.96232 -0.89202 -0.45366	0.94809 0.56296 -0.62703	0.84031 0.19171 0.68900
ROW 20	-0.36564 -0.70039 -0.21977 0.18756	-0.90308 -0.85681 -0.24551 -0.21265	-0.91184 -0.74358 -0.39509 0.67689	-0.89566 -0.73786 -0.26230 0.99527	-0.90633 -0.67888 -0.21342 0.98212	-0.92873 -0.89399 0.20313 0.99184	-0.95464 -0.90268 -0.60371 -0.96614	-0.87690 -0.89202 -0.79710	-0.92897 1.00000 0.24765	-0.88016 -0.73613 0.65049	-0.76771 -0.28907 -0.65040
ROW 21	-0.00056 0.23174 -0.13172 -0.13374	0.55423 0.87610 -0.10149 0.13049	0.55667 0.47070 0.05014 -0.66156	0.57658 0.90154 0.43802 -0.71662	0.61663 0.84663 -0.13962 -0.69358	0.65330 0.56902 -0.25176 -0.77591	0.64709 0.62887 0.23571 0.91634	0.50275 0.56296 0.29475	0.67718 -0.73613 -0.39810	0.47412 1.00000 -0.60752	0.30277 -0.07004 0.12820
ROW 22	0.22275 0.40458 0.93904 0.09522	0.20300 0.03724 0.95928 0.25259	0.21899 0.20551 0.91426 0.16480	0.14226 -0.00705 -0.18439 -0.32195	0.12635 0.15058 0.48521 -0.27153	0.15621 0.13354 0.33213 -0.26227	0.27834 0.15388 0.49686 0.	0.25633 0.19171 0.30674	0.15798 -0.28907 0.24527	0.29231 -0.07004 0.08275	0.40128 1.00000 0.19415
ROW 23	0.27659 0.39998 1.00000 0.14807	0.15241 0.02433 0.84567 0.22077	0.17507 0.16329 0.82417 0.23372	0.11232 -0.13390 -0.13440 -0.26004	0.10039 -0.02913 0.37646 -0.22042	0.11721 0.10506 0.22295 -0.18843	0.24268 0.09619 0.31395 0.	0.23833 0.13385 0.21699	0.13368 -0.21977 0.28369	0.24608 -0.13172 0.13559	0.36754 0.93904 0.19031
ROW 24	0.24553 0.37916 0.84567 0.08438	0.16884 0.01536 1.00000 0.26705	0.16776 0.16703 0.85627 0.15695	0.08771 0.01339 -0.19035 -0.28546	0.08415 0.18993 0.46845 -0.23645	0.11790 0.08777 0.23967 -0.21197	0.22732 0.10089 0.44295 0.	0.20315 0.14535 0.29392	0.11076 -0.24551 0.25387	0.25671 -0.10149 0.04406	0.38353 0.95928 0.22355

Table 5 Correlation Matrix Print Out Sheet, **Rigid Pavements** Sheet 3 of 4

Vertical Row Numbers	Horizontal Row Numbers										
	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31	32	33
	34	35	36	37	38	39	40	41	42	43	44
ROW 25	0.21287	0.23139	0.25876	0.18159	0.16131	0.19235	0.31255	0.26490	0.19305	0.29129	0.34664
	0.34709	0.04447	0.23448	0.21440	0.34390	0.17420	0.21567	0.24419	-0.39509	0.05014	0.91426
	0.82417	0.65627	1.00000	-0.26224	0.40323	0.42586	0.68144	0.32211	0.21736	-0.08559	0.27521
	0.02588	0.26620	0.00665	-0.41201	-0.34862	-0.38493	0.				
ROW 26	0.27895	0.21128	0.18160	0.21154	0.22281	0.25067	0.25180	0.13809	0.27739	0.15344	0.12890
	0.09431	0.46085	0.05025	0.19762	0.13839	0.21405	0.17990	0.13837	-0.26230	0.43802	-0.18439
	-0.13440	-0.19035	-0.26224	1.00000	0.03676	-0.23336	-0.06129	0.13259	-0.25039	-0.17109	-0.07217
	0.18596	0.31403	-0.26370	-0.28968	-0.27866	-0.20896	0.74152				
ROW 27	0.08034	0.23885	0.23173	0.16184	0.16041	0.16470	0.23619	0.21610	0.10682	0.29105	0.24817
	0.29115	0.00977	0.07258	-0.15133	-0.03317	0.15370	0.17472	0.22518	-0.21342	-0.13982	0.48521
	0.37646	0.46845	0.40323	0.03676	1.00000	0.44141	0.58547	0.61949	0.09346	0.21550	-0.01898
	0.16825	0.39029	0.09086	-0.22365	-0.23616	-0.17017	-0.17027				
ROW 28	-0.27591	-0.33802	-0.29875	-0.35224	-0.39633	-0.36654	-0.29663	-0.34740	-0.38233	-0.27085	-0.21159
	-0.16168	-0.46076	-0.21178	-0.22128	-0.07681	-0.36487	-0.28392	-0.28790	0.20313	-0.25176	0.33213
	0.22295	0.23967	0.42586	-0.23336	0.44141	1.00000	0.49212	-0.07211	0.13868	0.55335	-0.40410
	0.26437	0.22458	0.43056	0.22881	0.22902	0.19981	-0.79032				
ROW 29	0.15092	0.47708	0.50622	0.45895	0.41770	0.44170	0.50185	0.42366	0.41093	0.48898	0.42552
	0.40497	0.18896	0.40560	0.40232	0.48031	0.44784	0.48483	0.50416	-0.60371	0.23571	0.49686
	0.31395	0.44295	0.68144	-0.06129	0.58547	0.49212	1.00000	0.66824	-0.01968	-0.30537	0.30496
	-0.05931	0.31278	-0.36543	-0.58902	-0.55193	-0.59662	0.35959				
ROW 30	0.43477	0.82991	0.82853	0.79593	0.79811	0.79311	0.80788	0.80061	0.73966	0.86568	0.74061
	0.71293	0.56647	0.59959	0.31281	0.28849	0.79132	0.76667	0.80159	-0.79710	0.29475	0.30674
	0.21699	0.29392	0.32211	0.13259	0.61949	-0.07211	0.66824	1.00000	-0.06652	-0.35082	0.64202
	-0.10511	0.25427	-0.41118	-0.80364	-0.80027	-0.75202	0.64445				
ROW 31	0.61723	-0.41245	-0.40798	-0.41852	-0.42154	-0.41274	-0.38853	-0.39007	-0.47322	-0.36023	-0.40347
	-0.40615	-0.40085	-0.26139	-0.35812	-0.26618	-0.44842	-0.47243	-0.45366	0.24765	-0.39810	0.24527
	0.28369	0.25387	0.21736	-0.25039	0.09346	0.13868	-0.01968	-0.06652	1.00000	0.35430	-0.05841
	0.75166	0.60309	0.53426	0.19716	0.32380	0.28154	-0.30921				
ROW 32	-0.14101	-0.61678	-0.61062	-0.63890	-0.63856	-0.64334	-0.62711	-0.56747	-0.67970	-0.48514	-0.41849
	-0.33769	-0.59067	-0.49843	-0.76952	-0.67216	-0.65022	-0.63301	-0.62703	0.65049	-0.60752	0.08275
	0.13559	0.04406	-0.08559	-0.17109	0.21550	0.55335	-0.30537	-0.35082	0.35430	1.00000	-0.50732
	0.42052	0.05193	0.94750	0.63647	0.63472	0.68532	-0.85937				
ROW 33	0.56704	0.72224	0.72407	0.70153	0.69015	0.68119	0.68141	0.74980	0.67367	0.75395	0.74385
	0.68517	0.43539	0.61269	0.28524	0.17037	0.72000	0.65390	0.68900	-0.65040	0.12820	0.19415
	0.19031	0.22355	0.27521	-0.07217	-0.01898	-0.40410	0.30496	0.64202	-0.05841	-0.50732	1.00000
	-0.32638	-0.09212	-0.40754	-0.66049	-0.67074	-0.60597	0.47942				
ROW 34	0.47573	-0.46110	-0.45577	-0.46791	-0.45175	-0.41788	-0.36044	-0.47047	-0.41599	-0.41260	-0.37347
	-0.33075	-0.20622	-0.19673	-0.28306	-0.20934	-0.48156	-0.50637	-0.51727	0.18756	-0.13374	0.09522
	0.14807	0.08438	0.02588	0.18596	0.16825	0.26437	-0.05931	-0.10511	0.75166	0.42052	-0.32638
	1.00000	0.83153	0.46397	0.15010	0.20305	0.22679	-0.05950				
ROW 35	0.57832	-0.08167	-0.09216	-0.11478	-0.09610	-0.05164	0.01952	-0.13957	-0.06718	-0.10021	-0.08585
	-0.08191	0.05850	-0.06091	0.07718	0.16279	-0.12563	-0.12816	-0.13282	-0.21265	0.13049	0.25259
	0.22077	0.26705	0.26620	0.31403	0.39029	0.22458	0.31278	0.25427	0.60309	0.05193	-0.09212
	0.83153	1.00000	0.08075	-0.25082	-0.18779	-0.17236	0.30240				
ROW 36	0.01697	-0.67763	-0.67352	-0.70175	-0.69260	-0.69846	-0.68062	-0.61490	-0.74173	-0.53103	-0.46692
	-0.38731	-0.63335	-0.53221	-0.75752	-0.65371	-0.71249	-0.71327	-0.70012	0.67689	-0.66156	0.16480
	0.23372	0.15695	0.00665	-0.26370	0.09086	0.43056	-0.36543	-0.41118	0.53426	0.94750	-0.40754
	0.46397	0.08075	1.00000	0.64480	0.67980	0.71666	-0.86087				

Table 5 Correlation Matrix Print Out Sheet, **Rigid Pavements** Sheet 4 of 4

Vertical Row Numbers	Horizontal Row Numbers										
	1 12 23 34	2 13 24 35	3 14 25 36	4 15 26 37	5 16 27 38	6 17 28 39	7 18 29 40	8 19 30 41	9 20 31 42	10 21 32 43	11 22 33 44
ROW 37	-0.42620 -0.70191 -0.26004 0.15010	-0.89635 -0.85333 -0.28546 -0.25082	-0.90089 -0.73724 -0.41201 0.64480	-0.88443 -0.71546 -0.28968 1.00000	-0.89907 -0.66224 -0.22365 0.97626	-0.92185 -0.88334 0.22881 0.97854	-0.94827 -0.88358 -0.58902 -0.96747	-0.86977 -0.87617 -0.80364	-0.91557 0.99527 0.19716	-0.87678 -0.71662 0.63647	-0.76529 -0.32195 -0.66049
ROW 38	-0.32756 -0.78639 -0.22042 0.20305	-0.91215 -0.85608 -0.23645 -0.18779	-0.91780 -0.77606 -0.34862 0.67980	-0.89641 -0.68160 -0.27866 0.97626	-0.91173 -0.60854 -0.23616 1.00000	-0.93225 -0.90634 0.22902 0.96822	-0.96522 -0.90036 -0.55193 -0.93579	-0.89279 -0.89730 -0.80027	-0.94665 0.98212 0.32380	-0.89331 -0.69358 0.63472	-0.83259 -0.27153 -0.67074
ROW 39	-0.28220 -0.66139 -0.16843 0.22679	-0.88828 -0.85982 -0.21197 -0.17236	-0.90106 -0.72742 -0.38493 0.71666	-0.88922 -0.78572 -0.20896 0.97854	-0.89914 -0.72741 -0.17017 0.96822	-0.92114 -0.88485 0.19981 1.00000	-0.94479 -0.90672 -0.59662 -0.97850	-0.86364 -0.89065 -0.75202	-0.92709 0.99184 0.28154	-0.85383 -0.77591 0.68532	-0.73391 -0.26227 -0.60597
ROW 40	0.69101 0.55878 0. -0.05950	0.82306 0.98813 0. 0.30240	0.81577 0.78311 0. -0.86087	0.82474 0.96327 0.74152 -0.96747	0.87494 0.93004 -0.17027 -0.93579	0.89910 0.81510 -0.79032 -0.97850	0.90580 0.86342 0.35959 1.00000	0.80540 0.81236 0.64445	0.90324 -0.96614 -0.30921	0.78940 0.91634 -0.85937	0.64425 0. 0.47942

able 6 Key to Identification of Row Number for Matrix Table 7 (Overlay Pavements)

dentification Number	Item	Identification Number	Item
1	Cracking plus patching	22.	Raveling Minor
2	Mean rut depth	23	Raveling, Intermediate
3	Indiana Roughometer	24	Raveling, Major
4	Illinois Roughometer	25	Bleeding, Minor
5	BPR Roughometer	26	Bleeding, Intermediate
6	New York Roughometer	27	Bleeding, Major
7	Tennessee Roughometer	28	Mean rut depth, right wheel path
8	Michigan Roughometer (Roughness)	29	Mean rut depth, left wheel path
9	Michigan Roughometer (Acceleration)	30	Maximum rut depth
10	Michigan Profilometer	31	Blowups
11	Kentucky Accelerometer, 40 mph	32	Unsealed cracks
12	Kentucky Accelerometer, 51.5 mph	33	Number of transverse faults less than 0.2 inches
13	Kentucky Accelerometer, 60 mph	34	Maximum transverse fault
14	AASHO Profilometer, SV	35	Average transverse fault
15	CHLOE Profilometer, $\overline{SV}$	36	Sealed cracks
16	Texas Texturemeter	37	Bituminous patching
17	South Dakota Texturemeter	38	Right-of-way width
18	South Dakota Roughometer	39	Shoulder width
19	Minnesota Roughometer, Electrical Recorder	40	Width of test section
20	Minnesota Roughometer Mechanical Recorder	41	Mean HRB Committee Panel rating
21	Mean Over-all Panel rating	42	Mean AASHO Panel rating
		43	Mean Lay Panel rating
		44	Root mean square force

Table 7 Correlation Matrix Print out Sheet, **Overlay Pavements** Sheet 1 of 4

Vertical Row Numbers	Horizontal Row Numbers										
	1 12 23 34	2 13 24 35	3 14 25 36	4 15 26 37	5 16 27 38	6 17 28 39	7 18 29 40	8 19 30 41	9 20 31 42	10 21 32 43	11 22 33 44
ROW 1	1.00000 0.58305 -0.04741 0.26002	0.74645 0.64368 -0.01310 0.24284	0.23554 0.17333 -0.37446 0.78335	0.22783 0.23035 -0.42232 0.64301	0.24617 0.10275 0.03077 -0.63869	0.40430 0.12602 0.61666 -0.18339	0.27524 0.28342 0.66392 -0.58432	0.25285 0.28122 0.60558 -0.64326	0.26053 0.15267 0.15916 -0.58995	0.32391 -0.63466 0.25685 -0.61405	0.45763 0.13290 0.52793 0.26167
ROW 2	0.74645 0.44693 -0.16431 -0.13537	1.00000 0.66419 -0.09729 0.10311	0.39776 0.35532 -0.46681 0.43441	0.37681 0.40109 -0.22888 0.80540	0.37791 0.01972 0.07473 -0.62154	0.49862 0.10885 0.81814 0.03518	0.40989 0.46891 0.89562 -0.21433	0.41767 0.43117 0.78351 -0.60134	0.29374 0.33098 0.09098 -0.60467	0.48109 -0.63342 0.16728 -0.64755	0.29973 0.25380 0.02388 0.86259
ROW 3	0.23554 0.74711 0.33057 0.24615	0.39776 0.68827 0.32725 0.01433	1.00000 0.98514 0.29776 -0.08893	0.99319 0.92866 -0.00435 0.58172	0.99583 0.38882 0.23699 -0.32437	0.94763 0.58046 0.39050 -0.20980	0.99223 0.97540 0.30590 -0.09848	0.98034 0.99505 0.79737 -0.88094	0.93154 0.99153 0.14370 -0.90921	0.98638 -0.88630 0.15464 -0.85928	0.71389 0.02767 -0.04372 0.94029
ROW 4	0.22783 0.73676 0.32965 0.27563	0.37681 0.64871 0.34037 0.03328	0.99319 0.97965 0.26049 -0.07461	1.00000 0.93186 -0.02895 0.52568	0.99710 0.37728 0.26911 -0.35807	0.95753 0.57807 0.38123 -0.23210	0.99505 0.98237 0.28105 -0.14295	0.97658 0.98832 0.79424 -0.88336	0.95161 0.98749 0.18305 -0.91362	0.98109 -0.89036 0.16198 -0.86752	0.73985 0.07284 -0.00948 0.94248
ROW 5	0.24617 0.76302 0.34195 0.28871	0.37791 0.67492 0.34778 0.02781	0.99583 0.97560 0.29960 -0.05761	0.99710 0.92003 -0.00089 0.53574	1.00000 0.40364 0.27216 -0.34998	0.95263 0.58281 0.36800 -0.19663	0.99328 0.97391 0.29297 -0.14924	0.97127 0.99131 0.78878 -0.89288	0.95203 0.98897 0.17924 -0.91907	0.98174 -0.89651 0.16372 -0.86569	0.75377 0.06070 -0.00548 0.92871
ROW 6	0.40430 0.82811 0.36943 0.37069	0.49862 0.74135 0.36813 -0.00915	0.94763 0.96175 0.09372 0.09864	0.95753 0.91158 -0.17884 0.65080	0.95263 0.40654 0.32055 -0.50078	1.00000 0.64298 0.50964 -0.41411	0.96822 0.97006 0.38113 -0.21109	0.95280 0.96194 0.87019 -0.93212	0.94578 0.92840 0.12582 -0.95198	0.98621 -0.94308 0.14048 -0.93646	0.82079 -0.04242 0.07123 0.91749
ROW 7	0.27524 0.74607 0.29476 0.26403	0.40989 0.66880 0.29223 0.03345	0.99223 0.98475 0.21005 -0.03660	0.99505 0.94764 -0.06433 0.57614	0.99328 0.33609 0.19834 -0.34791	0.96822 0.55819 0.43142 -0.24511	1.00000 0.98847 0.29278 -0.16300	0.98803 0.99032 0.81152 -0.89622	0.93478 0.97939 0.13866 -0.92446	0.98732 -0.90323 0.15556 -0.87976	0.72223 0.01959 0.02580 0.95279
ROW 8	0.25285 0.67846 0.20894 0.16047	0.41767 0.63150 0.19365 0.01133	0.98034 0.99064 0.16209 -0.07300	0.97658 0.97717 -0.07857 0.62847	0.97127 0.23496 0.10238 -0.30925	0.95280 0.49189 0.49195 -0.28774	0.98803 0.98856 0.25785 -0.10009	1.00000 0.98052 0.81697 -0.86423	0.88276 0.96855 0.06757 -0.89538	0.98638 -0.87796 0.12454 -0.87197	0.62958 -0.03359 -0.02119 0.97963
ROW 9	0.26053 0.83420 0.53167 0.47305	0.29374 0.67595 0.56579 -0.02334	0.93154 0.88174 0.32337 0.03229	0.95161 0.81328 -0.07073 0.41909	0.95203 0.58494 0.44638 -0.45609	0.94578 0.72788 0.22994 -0.27574	0.93478 0.91130 0.27111 -0.18942	0.88276 0.93276 0.71875 -0.87876	1.00000 0.93582 0.27320 -0.89365	0.91630 -0.87738 0.14214 -0.84660	0.88697 0.16258 0.05920 0.79118
ROW 10	0.32391 0.76222 0.31003 0.26210	0.48109 0.70495 0.30801 -0.02791	0.98638 0.97754 0.16630 -0.00871	0.98109 0.94495 -0.22289 0.66485	0.98174 0.33259 0.17328 -0.45565	0.98621 0.60068 0.53133 -0.43398	0.98732 0.98596 0.31748 -0.08673	0.98638 0.98463 0.87514 -0.88927	0.91630 0.97815 0.09575 -0.91847	1.00000 -0.90025 0.11490 -0.89584	0.70429 0.00887 -0.04631 0.95614
ROW 11	0.45763 0.90161 0.57774 0.59763	0.29973 0.73180 0.65617 -0.09914	0.71389 0.57523 0.30984 0.39076	0.73985 0.53123 -0.14327 0.33150	0.75377 0.68878 0.61893 -0.49178	0.82079 0.69841 0.11918 -0.17272	0.72223 0.67959 0.36595 -0.33346	0.62958 0.72177 0.59262 -0.81759	0.88697 0.70947 0.25083 -0.79458	0.70429 -0.80070 0.03097 -0.75192	1.00000 0.33758 0.19893 0.47460
ROW 12	0.58305 1.00000 0.61183 0.62689	0.44693 0.91154 0.61762 -0.02296	0.74711 0.65547 0.24722 0.33623	0.73676 0.55250 -0.22354 0.59064	0.76302 0.70204 0.38649 -0.49291	0.82811 0.76850 0.26305 -0.26526	0.74607 0.70144 0.47965 -0.25040	0.67846 0.76745 0.71037 -0.87495	0.83420 0.71381 0.21439 -0.85423	0.76222 -0.84756 0.16886 -0.77710	0.90161 0.06925 0.16762 0.54195

Table 7 Correlation Matrix Print Out Sheet, **Overlay Pavements** Sheet 2 of 4

Vertical Row Numbers	Horizontal Row Numbers										
	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31	32	33
	34	35	36	37	38	39	40	41	42	43	44
ROW 13	0.64368	0.66419	0.68827	0.64871	0.67492	0.74135	0.66880	0.63150	0.67595	0.70495	0.73180
	0.91154	1.00000	0.60038	0.49593	0.57497	0.64952	0.63926	0.70742	0.63812	-0.79639	0.10434
	0.45378	0.46743	0.13011	-0.29379	0.32385	0.40649	0.70076	0.77147	0.10812	0.12844	0.00414
	0.37740	-0.04592	0.33639	0.78841	-0.43315	-0.20476	-0.08921	-0.81388	-0.79585	-0.74544	0.64618
ROW 14	0.17333	0.35532	0.98514	0.97965	0.97560	0.96175	0.98475	0.99064	0.88174	0.97754	0.57523
	0.65547	0.60038	1.00000	0.96137	0.24906	0.56926	0.97775	0.98161	0.97425	-0.85230	-0.12133
	0.29057	0.25635	0.15090	-0.27277	0.04689	0.44165	0.18869	0.83659	0.09827	0.18229	-0.04204
	0.22388	0.05782	-0.21052	0.60043	-0.32980	-0.46839	0.09333	-0.84122	-0.88829	-0.83985	0.96625
ROW 15	0.23035	0.40109	0.92866	0.93186	0.92003	0.91158	0.94764	0.97717	0.81328	0.94495	0.53123
	0.55250	0.49593	0.96137	1.00000	0.06913	0.38911	0.96163	0.92126	0.92390	-0.81744	-0.04091
	0.08250	0.07208	-0.02147	-0.23062	0.00519	0.56157	0.17538	0.78149	0.02037	0.07871	0.02198
	0.07691	0.00782	-0.06300	0.58799	-0.33804	-0.40951	-0.09959	-0.79186	-0.82650	-0.84478	0.98688
ROW 16	0.10275	0.01972	0.38882	0.37728	0.40364	0.40654	0.33609	0.23496	0.58494	0.33259	0.68878
	0.70204	0.57497	0.24906	0.06913	1.00000	0.92341	0.27475	0.38859	0.40225	-0.35539	0.09484
	0.95481	0.96748	0.83760	0.02175	0.60760	-0.30789	0.26128	0.21241	0.35888	0.16070	-0.03577
	0.73423	-0.10444	-0.02519	0.11001	-0.40742	-0.22144	0.04555	-0.39092	-0.38109	-0.27568	-0.03105
ROW 17	0.12602	0.10885	0.58046	0.57807	0.58281	0.64298	0.55819	0.49189	0.72788	0.60068	0.69841
	0.76850	0.64952	0.56926	0.38911	0.92341	1.00000	0.51797	0.59408	0.58435	-0.51693	-0.08651
	0.93556	0.90474	0.35828	-0.21278	0.39984	-0.07601	0.22518	0.42418	0.31166	0.21036	-0.01076
	0.72667	-0.06810	-0.11879	0.30302	-0.38860	-0.45661	0.03935	-0.54336	-0.55543	-0.45713	0.26990
ROW 18	0.28342	0.46891	0.97540	0.98237	0.97391	0.97006	0.98847	0.98856	0.91130	0.98596	0.67959
	0.70144	0.63926	0.97775	0.96163	0.27475	0.51797	1.00000	0.97865	0.96511	-0.90253	0.05702
	0.22970	0.23990	0.10430	-0.07122	0.18240	0.51375	0.31931	0.84399	0.11974	0.12538	-0.02353
	0.18247	0.00169	-0.02743	0.61359	-0.40685	-0.27209	-0.12491	-0.88325	-0.91609	-0.90044	0.97358
ROW 19	0.28122	0.43117	0.99505	0.98832	0.99131	0.96194	0.99032	0.98052	0.93276	0.98463	0.72177
	0.76745	0.70742	0.98161	0.92126	0.38859	0.59408	0.97865	1.00000	0.98831	-0.90409	0.00385
	0.33388	0.32526	0.26277	-0.04137	0.20807	0.44063	0.31818	0.83140	0.14259	0.15487	-0.03707
	0.25682	-0.00359	-0.05187	0.62201	-0.37814	-0.25390	-0.12628	-0.89742	-0.92442	-0.88018	0.93835
ROW 20	0.15267	0.33098	0.99153	0.98749	0.98897	0.92840	0.97939	0.96855	0.93582	0.97815	0.70947
	0.71381	0.63812	0.97425	0.92390	0.40225	0.58435	0.96511	0.98831	1.00000	-0.84788	0.04507
	0.34621	0.34752	0.34814	0.03334	0.26561	0.34407	0.23974	0.75796	0.12219	0.08836	-0.11513
	0.21613	-0.06597	-0.12924	0.53232	-0.30281	-0.20961	-0.04800	-0.83833	-0.86889	-0.83046	0.93731
ROW 21	-0.63466	-0.63342	-0.88630	-0.89036	-0.89651	-0.94308	-0.90323	-0.87796	-0.87738	-0.90025	-0.80070
	-0.84756	-0.79639	-0.85230	-0.81744	-0.35539	-0.51693	-0.90253	-0.90409	-0.84788	1.00000	-0.17104
	-0.24688	-0.28492	-0.03807	0.20060	-0.27659	-0.56228	-0.53322	-0.89926	-0.27176	-0.26561	-0.21477
	-0.33422	-0.14575	-0.29197	-0.69369	0.62401	0.24841	0.35119	0.99537	0.99245	0.98158	-0.87387
ROW 22	0.13290	0.25380	0.02767	0.07284	0.06070	-0.04242	0.01959	-0.03359	0.16258	0.00887	0.33758
	0.06925	0.10434	-0.12133	-0.04091	0.09484	-0.08651	0.05702	0.00385	0.04507	-0.17104	1.00000
	-0.09377	0.16802	-0.07253	0.02102	0.83218	-0.07580	0.44658	0.09298	0.28734	-0.16361	-0.18223
	-0.18388	-0.09789	0.32051	-0.11130	-0.33113	0.38204	0.09213	-0.13517	-0.11044	-0.24694	-0.22839
ROW 23	-0.04741	-0.16431	0.33057	0.32965	0.34195	0.36943	0.29476	0.20894	0.53167	0.31003	0.57774
	0.61183	0.45378	0.29057	0.08250	0.95481	0.93556	0.22970	0.33388	0.34621	-0.24688	-0.09377
	1.00000	0.96528	0.50253	-0.11103	0.44673	-0.38467	0.04643	0.11663	0.34656	0.20528	-0.00306
	0.79426	-0.05199	-0.18588	0.00963	-0.22678	-0.35826	0.08333	-0.29053	-0.29189	-0.16764	-0.05180
ROW 24	-0.01310	-0.09729	0.32725	0.34037	0.34778	0.36813	0.29223	0.19365	0.56579	0.30801	0.65617
	0.61762	0.46743	0.25635	0.07208	0.96748	0.90474	0.23990	0.32526	0.34752	-0.28492	0.16802
	0.96528	1.00000	0.45853	-0.11903	0.65510	-0.39758	0.15884	0.13813	0.42220	0.16162	-0.04522
	0.74140	-0.07583	-0.09936	-0.02488	-0.31934	-0.26839	0.10398	-0.31785	-0.31353	-0.22853	-0.05180

Table 7 Correlation Matrix Print Out Sheet, **Overlay Pavements** Sheet 3 of 4

Vertical Row Numbers	Horizontal Row Numbers										
	1 12 23 34	2 13 24 35	3 14 25 36	4 15 26 37	5 16 27 38	6 17 28 39	7 18 29 40	8 19 30 41	9 20 31 42	10 21 32 43	11 22 33 44
ROW 25	-0.37446	-0.46681	0.29776	0.26049	0.29960	0.09372	0.21005	0.16209	0.32337	0.16630	0.30984
	0.24722	0.13011	0.15090	-0.02147	0.83760	0.35828	0.10430	0.26277	0.34814	-0.03807	-0.07253
	0.50253	0.45853	1.00000	0.47707	0.34351	-0.54090	-0.29509	-0.14843	0.04047	-0.03832	-0.20196
	0.27903	-0.14010	-0.34615	-0.20394	0.31512	0.13529	0.15187	-0.08341	-0.07412	0.04596	-0.19544
ROW 26	-0.42232	-0.22888	-0.00435	-0.02895	-0.00089	-0.17884	-0.06433	-0.07857	-0.07073	-0.22289	-0.14327
	-0.22354	-0.29379	-0.27277	-0.23062	0.02175	-0.21278	-0.07122	-0.04137	0.03334	0.20060	0.02102
	-0.11103	-0.11903	0.47707	1.00000	0.08684	-0.19412	-0.19968	-0.26987	-0.16287	-0.16315	-0.30348
	-0.27052	-0.16536	-0.29377	-0.28097	0.24040	0.54324	0.15711	0.21120	0.19190	0.24923	0.23329
ROW 27	0.03077	0.07473	0.23699	0.26911	0.27216	0.32055	0.19834	0.10238	0.44638	0.17328	0.61893
	0.38649	0.32385	0.04689	0.00519	0.60760	0.39984	0.18240	0.20807	0.26561	-0.27659	0.83218
	0.44673	0.65510	0.34351	0.08684	1.00000	-0.33369	0.37236	0.10804	0.40600	-0.06304	-0.19382
	0.23948	-0.13260	0.14198	-0.13027	-0.32723	0.23226	0.14283	-0.27254	-0.25002	-0.28886	-0.05180
ROW 28	0.61666	0.81814	0.39050	0.38123	0.36800	0.50964	0.43142	0.49195	0.22994	0.53133	0.11918
	0.26305	0.40649	0.44165	0.56157	-0.30789	-0.07601	0.51375	0.44063	0.34407	-0.56228	-0.07580
	-0.38467	-0.39758	-0.54090	-0.19412	-0.33369	1.00000	0.47695	0.77905	-0.19081	0.03148	0.04256
	-0.25559	0.01554	0.35816	0.79126	-0.47282	-0.30845	-0.30555	-0.52343	-0.54373	-0.59498	0.78316
ROW 29	0.66392	0.89562	0.30590	0.28105	0.29297	0.38113	0.29278	0.25785	0.27111	0.31748	0.36595
	0.47965	0.70076	0.18869	0.17538	0.26128	0.22518	0.31931	0.31818	0.23974	-0.53322	0.44658
	0.04643	0.15884	-0.29509	-0.19968	0.37236	0.47695	1.00000	0.59495	0.28667	0.23134	0.00358
	-0.00920	0.14559	0.38693	0.61896	-0.58427	0.31477	-0.09123	-0.51424	-0.50362	-0.52953	0.50564
ROW 30	0.60558	0.78351	0.79737	0.79424	0.78878	0.87019	0.81152	0.81697	0.71875	0.87514	0.59262
	0.71037	0.77147	0.83659	0.78149	0.21241	0.42418	0.84399	0.83140	0.75796	-0.89926	0.09298
	0.11663	0.13813	-0.14843	-0.26987	0.10804	0.77905	0.59495	1.00000	0.16880	0.24157	-0.00498
	0.15712	0.11140	0.20480	0.82152	-0.61713	-0.37218	-0.25461	-0.88533	-0.90749	-0.89442	0.98284
ROW 31	0.15916	0.09098	0.14370	0.18305	0.17924	0.12582	0.13866	0.06757	0.27320	0.09575	0.25083
	0.21439	0.10812	0.09827	0.02037	0.35888	0.31166	0.11974	0.14259	0.12219	-0.27176	0.28734
	0.34656	0.42220	0.04047	-0.16287	0.40600	-0.19081	0.28667	0.16880	1.00000	0.83273	0.30829
	0.49407	0.72158	-0.19943	-0.18121	-0.59734	0.00746	-0.25882	-0.29080	-0.29574	-0.24646	0.09663
ROW 32	0.25685	0.16728	0.15464	0.16198	0.16372	0.14048	0.15556	0.12454	0.14214	0.11490	0.03097
	0.16886	0.12844	0.18229	0.07871	0.16070	0.21036	0.12538	0.15487	0.08836	-0.26561	-0.16361
	0.20528	0.16162	-0.03832	-0.16315	-0.06304	0.03148	0.23134	0.24157	0.83273	1.00000	0.46669
	0.48116	0.92930	-0.27441	0.01500	-0.44193	-0.12396	-0.38059	-0.30265	-0.31842	-0.19569	0.30406
ROW 33	0.52793	0.02388	-0.04372	-0.00948	-0.00548	0.07123	0.02580	-0.02119	0.05920	-0.04631	0.19893
	0.16762	0.00414	-0.04204	0.02198	-0.03577	-0.01076	-0.02353	-0.03707	-0.11513	-0.21477	-0.18223
	-0.00306	-0.04522	-0.20196	-0.30348	-0.19382	0.04256	0.00358	-0.00498	0.30829	0.46669	1.00000
	0.50656	0.58434	0.43927	-0.09755	-0.25473	-0.14585	-0.82532	-0.25237	-0.20904	-0.15141	-0.29431
ROW 34	0.26002	-0.13537	0.24615	0.27563	0.28871	0.37069	0.26403	0.16047	0.47305	0.26210	0.59763
	0.62689	0.37740	0.22388	0.07691	0.73423	0.72667	0.18247	0.25682	0.21613	-0.33422	-0.18388
	0.79426	0.74140	0.27903	-0.27052	0.23948	-0.25559	-0.00920	0.15712	0.49407	0.48116	0.50656
	1.00000	0.34418	0.08187	-0.07557	-0.32460	-0.41416	-0.43429	-0.40195	-0.38575	-0.21642	-0.12463
ROW 35	0.24284	0.10311	0.01433	0.03328	0.02781	-0.00915	0.03345	0.01133	-0.02334	-0.02791	-0.09914
	-0.02296	-0.04592	0.05782	0.00782	-0.10444	-0.06810	0.00169	-0.00359	-0.06597	-0.14575	-0.09789
	-0.05199	-0.07583	-0.14010	-0.16536	-0.13260	0.01554	0.14559	0.11140	0.72158	0.92930	0.58434
	0.34418	1.00000	-0.18333	-0.11732	-0.26421	-0.02711	-0.46943	-0.18329	-0.19200	-0.08289	-0.22337
ROW 36	0.78335	0.43441	-0.08893	-0.07461	-0.05761	0.09864	-0.03660	-0.07300	0.03229	-0.00871	0.39076
	0.33623	0.33639	-0.21052	-0.06300	-0.02519	-0.11879	-0.02743	-0.05187	-0.12924	-0.29197	0.32051
	-0.18588	-0.09936	-0.34615	-0.29377	0.14198	0.35816	0.38693	0.20480	-0.19943	-0.27441	0.43927
	0.08187	-0.18333	1.00000	0.29543	-0.33992	0.03673	-0.50974	-0.29058	-0.21499	-0.29965	-0.27548

Table 7 Correlation Matrix Print Out Sheet, **Overlay Pavements** Sheet **4** of **4**

Vertical Row Numbers	Horizontal Row Numbers										
	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31	32	33
	34	35	36	37	38	39	40	41	42	43	44
ROW 37	0.64301	0.80540	0.58172	0.52568	0.53574	0.65080	0.57614	0.62847	0.41909	0.66485	0.33150
	0.59064	0.78841	0.60043	0.58799	0.11001	0.30302	0.61359	0.62201	0.53232	-0.69369	-0.11130
	0.00963	-0.02488	-0.20394	-0.28097	-0.13027	0.79126	0.61896	0.82152	-0.18121	0.01500	-0.09755
	-0.07557	-0.11732	0.29543	1.00000	-0.40334	-0.44291	-0.00413	-0.67464	-0.67279	-0.70877	0.97158
ROW 38	-0.63869	-0.62154	-0.32437	-0.35807	-0.34998	-0.50078	-0.34791	-0.30925	-0.45609	-0.45565	-0.49178
	-0.49291	-0.43315	-0.32980	-0.33804	-0.40742	-0.38860	-0.40685	-0.37814	-0.30281	0.62401	-0.33113
	-0.22678	-0.31934	0.31512	0.24040	-0.32723	-0.47282	-0.58427	-0.61713	-0.59734	-0.44193	-0.25473
	-0.32460	-0.26421	-0.33992	-0.40334	1.00000	0.26537	0.38183	0.60062	0.59282	0.65013	-0.53429
ROW 39	-0.18339	0.03518	-0.20980	-0.23210	-0.19663	-0.41411	-0.24511	-0.28774	-0.27574	-0.43398	-0.17272
	-0.26526	-0.20476	-0.46839	-0.40951	-0.22144	-0.45661	-0.27209	-0.25390	-0.20961	0.24841	0.38204
	-0.35826	-0.26839	0.13529	0.54324	0.23226	-0.30845	0.31477	-0.37218	0.00746	-0.12396	-0.14585
	-0.41416	-0.02711	0.03673	-0.44291	0.26537	1.00000	0.10028	0.26162	0.27284	0.27260	-0.23429
ROW 40	-0.58432	-0.21433	-0.09848	-0.14295	-0.14924	-0.21109	-0.16300	-0.10009	-0.18942	-0.08673	-0.33346
	-0.25040	-0.08921	0.09333	-0.09959	0.04555	0.03935	-0.12491	-0.12628	-0.04800	0.35119	0.09213
	0.08333	0.10398	0.15187	0.15711	0.14283	-0.30555	-0.09123	-0.25461	-0.25882	-0.38059	-0.82532
	-0.43429	-0.46943	-0.50974	-0.00413	0.38183	0.10028	1.00000	0.38290	0.35998	0.26854	0.27548
ROW 41	-0.64326	-0.60134	-0.88094	-0.88336	-0.89288	-0.93212	-0.89622	-0.86423	-0.87876	-0.88927	-0.81759
	-0.87495	-0.81388	-0.84122	-0.79186	-0.39092	-0.54336	-0.88325	-0.89742	-0.83833	0.99537	-0.13517
	-0.29053	-0.31785	-0.08341	0.21120	-0.27254	-0.52343	-0.51424	-0.88533	-0.29080	-0.30265	-0.25237
	-0.40195	-0.18329	-0.29058	-0.67464	0.60062	0.26162	0.38290	1.00000	0.99440	0.96223	-0.84785
ROW 42	-0.58995	-0.60467	-0.90921	-0.91362	-0.91907	-0.95198	-0.92446	-0.89538	-0.89365	-0.91847	-0.79458
	-0.85423	-0.79585	-0.88829	-0.82650	-0.38109	-0.55543	-0.91609	-0.92442	-0.86889	0.99245	-0.11044
	-0.29189	-0.31353	-0.07412	0.19190	-0.25002	-0.54373	-0.50362	-0.90749	-0.29574	-0.31842	-0.20904
	-0.38575	-0.19200	-0.21499	-0.67279	0.59282	0.27284	0.35998	0.99440	1.00000	0.95862	-0.88915
ROW 43	-0.61405	-0.64755	-0.85928	-0.86752	-0.86569	-0.93646	-0.87976	-0.87197	-0.84660	-0.89584	-0.75192
	-0.77710	-0.74544	-0.83985	-0.84478	-0.27568	-0.45713	-0.90044	-0.88018	-0.83046	0.98158	-0.24694
	-0.16764	-0.22853	0.04596	0.24923	-0.28886	-0.59498	-0.52953	-0.89442	-0.24646	-0.19569	-0.15141
	-0.21642	-0.08289	-0.29965	-0.70877	0.65013	0.27260	0.26854	0.96223	0.95862	1.00000	-0.89789
ROW 44	0.26167	0.86259	0.94029	0.94248	0.92871	0.91749	0.95279	0.97963	0.79118	0.95614	0.47460
	0.54195	0.64618	0.96625	0.98688	-0.03105	0.26990	0.97358	0.93835	0.93731	-0.87387	-0.22839
	-0.05180	-0.05180	-0.19544	0.23329	-0.05180	0.78316	0.50564	0.98284	0.09663	0.30406	-0.29431
	-0.12463	-0.22337	-0.27548	0.97158	-0.53429	-0.23429	0.27548	-0.84785	-0.88915	-0.89789	1.00000

able 8 Key to Identification of Row Numbers for Matrix in Table 9 (Flexible Pavements)

Identification Number	Item	Identification Number	Item
1	Cracking plus patching	21	Mean Over-all Panel rating
2	Mean rut depth	22	Raveling, minor
3	Indiana Roughometer	23	Raveling, intermediate
4	Illinois Roughometer	24	Raveling, major
5	BPR Roughometer	25	Bleeding, minor
6	New York Roughometer	26	Bleeding, intermediate
7	Tennessee Roughometer	27	Bleeding, major
8	Michigan Roughometer, (Roughness)	28	Mean rut depth right wheel path
9	Michigan Roughometer, (Acceleration)	29	Mean rut depth left wheel path
10	Michigan Profilometer	30	Maximum rut depth
11	Kentucky Accelerometer, 40 mph	31	Unsealed cracks
12	Kentucky Accelerometer, 51.5 mph	32	Bituminous patching
13	Kentucky Accelerometer, 60 mph	33	Right-of-way width
14	AASHO Profilometer, SV	34	Shoulder width
15	CHLOE Profilometer, SV	35	Width of test section
16	Texas Texturemeter	36	Mean HRB Committee Panel rating
17	South Dakota Texturemeter	37	Mean AASHO Panel rating
18	South Dakota Roughometer	38	Mean Lay Panel rating
19	Minnesota Roughometer, Electrical Recorder	39	Map cracking
20	Minnesota Roughometer, Mechanical Recorder	40	Root mean square force

Table 9 Correlation Matrix Print Out Sheet, **Flexible Pavements** Sheet 1 of 4

Vertical Row Numbers	Horizontal Row Numbers										
	1 12 23 34	2 13 24 35	3 14 25 36	4 15 26 37	5 16 27 38	6 17 28 39	7 18 29 40	8 19 30 41	9 20 31 42	10 21 32 43	11 22 33 44
ROW 1	1.00000 0.05809 0.39885 -0.03424	0.19916 0.00386 0.19312 0.07174	0.21134 0.00714 -0.10673 -0.13009	0.22353 0.02036 -0.02478 -0.10325	0.18140 0.03507 0.07446 -0.20327	0.18741 -0.04945 0.05956 0.98329	0.19057 0.14461 0.34488 -0.42977	0.11839 0.21520 0.28845	0.29511 0.22329 0.11865	0.08908 -0.12343 0.09258	0.24409 -0.22292 0.17962
ROW 2	0.19916 0.00508 0.10840 0.36232	1.00000 0.04782 -0.32456 0.37301	0.08645 0.01875 0.04658 -0.10813	-0.00695 0.17294 -0.00916 -0.07166	0.10279 0.23566 -0.09530 -0.16374	0.16693 0.26121 0.92313 0.21534	0.10959 0.08352 0.83257 0.55504	0.12111 0.11499 0.35745	-0.03874 0.09815 0.33080	0.10720 -0.09752 -0.14775	0.00552 0.37209 0.21976
ROW 3	0.21134 0.85619 0.16593 -0.07902	0.08645 0.82779 0.22682 -0.45035	1.00000 0.87670 0.40672 -0.89269	0.96887 0.94121 0.48045 -0.86145	0.99241 0.24569 0.50657 -0.93621	0.90018 0.29579 0.26015 0.10830	0.99336 0.98247 -0.18785 0.88488	0.97641 0.98171 0.69890	0.94675 0.98706 -0.10051	0.91812 -0.91173 0.59021	0.92155 0.25828 -0.34917
ROW 4	0.22353 0.88744 0.12374 -0.06554	-0.00695 0.87074 0.23036 -0.46782	0.98887 0.91289 0.44826 -0.89690	1.00000 0.96573 0.54193 -0.87046	0.98724 0.21329 0.45744 -0.92029	0.88068 0.34581 0.22941 0.03602	0.98813 0.98122 -0.33019 0.86486	0.97361 0.98107 0.69375	0.96272 0.99170 -0.16929	0.94733 -0.91136 0.55288	0.94104 0.24459 -0.42925
ROW 5	0.18140 0.83818 0.14938 -0.02993	0.10279 0.74635 0.20949 -0.45469	0.99241 0.86934 0.42208 -0.88427	0.98724 0.93821 0.50710 -0.85469	1.00000 0.24460 0.47221 -0.93300	0.88295 0.29336 0.26301 0.08601	0.99177 0.98873 -0.15661 0.89925	0.96903 0.98165 0.66097	0.94984 0.99007 -0.14650	0.91139 -0.90733 0.55636	0.91709 0.27593 -0.35420
ROW 6	0.18741 0.80736 0.21587 0.21331	0.16693 0.79615 0.28158 -0.35841	0.90018 0.78563 0.50847 -0.76691	0.88068 0.89624 0.11585 -0.77833	0.88295 0.30724 0.56411 -0.94327	1.00000 0.35178 0.32568 0.09742	0.90927 0.90178 -0.09445 0.97466	0.87943 0.89744 0.60682	0.79993 0.88209 -0.08797	0.87220 -0.78557 0.51416	0.87194 0.28270 -0.31134
ROW 7	0.19057 0.86257 0.13103 -0.02056	0.10959 0.82967 0.19675 -0.43877	0.99336 0.89287 0.45013 -0.89436	0.98813 0.95208 0.47931 -0.86507	0.99177 0.23698 0.48228 -0.93460	0.90927 0.29860 0.28505 0.09233	1.00000 0.99014 -0.17367 0.91161	0.97767 0.97518 0.69277	0.94637 0.98170 -0.09125	0.93863 -0.91202 0.56162	0.92668 0.28375 -0.36747
ROW 8	0.11839 0.88304 0.05752 -0.05302	0.12111 0.87149 0.17213 -0.36683	0.97641 0.90603 0.41803 -0.89797	0.97361 0.97106 0.49465 -0.85142	0.96903 0.17467 0.57207 -0.91492	0.87943 0.27735 0.32325 0.00070	0.97767 0.97519 -0.20379 0.95794	1.00000 0.94886 0.75636	0.92556 0.96457 -0.04672	0.93570 -0.90981 0.65822	0.91020 0.21219 -0.38165
ROW 9	0.29511 0.80809 0.09937 -0.04510	-0.03874 0.74303 0.27668 -0.52387	0.94675 0.82240 0.42355 -0.84780	0.96272 0.85968 0.51626 -0.80267	0.94984 0.10336 0.42685 -0.87393	0.79993 0.16479 0.12509 0.20272	0.94637 0.92868 -0.26399 0.66598	0.92556 0.92479 0.65686	1.00000 0.94510 -0.11779	0.87022 -0.85791 0.53694	0.91538 0.15323 -0.39678
ROW 10	0.08908 0.93398 0.10562 -0.06083	0.10720 0.90055 0.18418 -0.43006	0.91812 0.91416 0.50837 -0.90323	0.94733 0.96373 0.39775 -0.89379	0.91139 0.28705 0.47190 -0.86871	0.87220 0.42205 0.35327 -0.00882	0.93863 0.92384 -0.27711 0.94879	0.93570 0.91119 0.72128	0.87022 0.90534 -0.00430	1.00000 -0.90003 0.54059	0.94660 0.19069 -0.54304
ROW 11	0.24409 0.92571 0.27080 -0.08194	0.00552 0.85902 0.24632 -0.48736	0.92155 0.86998 0.51552 -0.88267	0.94104 0.91844 0.33967 -0.88385	0.91709 0.29576 0.45593 -0.87901	0.87194 0.38724 0.21674 0.15644	0.92668 0.91720 -0.30030 0.75992	0.91020 0.93272 0.65210	0.91538 0.92979 -0.09708	0.94660 -0.88154 0.50589	1.00000 0.04154 -0.52345
ROW 12	0.05809 1.00000 0.25979 -0.07803	0.00508 0.97846 0.17725 -0.34889	0.85619 0.89858 0.56877 -0.90164	0.88744 0.89840 0.38968 -0.91063	0.83818 0.20750 0.46463 -0.80856	0.80736 0.31162 0.25637 -0.03479	0.86257 0.85106 -0.35834 0.96661	0.88304 0.84102 0.68881	0.80809 0.84396 -0.07176	0.93398 -0.88398 0.52533	0.92571 -0.02524 -0.49007

Table 9 Correlation Matrix Print Out Sheet, **Flexible Pavemente** Sheet **2** of **4**

Vertical Row Numbers	Horizontal Row Numbers										
	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31	32	33
	34	35	36	37	38	39	40	41	42	43	44
ROW 13	0.00386	0.04782	0.82779	0.87074	0.79635	0.79615	0.82967	0.87149	0.74303	0.90055	0.85902
	0.97846	1.00000	0.88111	0.88271	0.17644	0.29364	0.81810	0.80230	0.80621	-0.86703	-0.01259
	0.20837	0.17216	0.48257	0.39068	0.51485	0.31280	-0.34722	0.73734	0.02285	0.57955	-0.42191
	-0.08086	-0.24503	-0.88710	-0.88155	-0.79463	-0.10243	0.98811				
ROW 14	0.00714	0.01875	0.87670	0.91289	0.86934	0.78563	0.89287	0.90603	0.82240	0.91416	0.86998
	0.89858	0.88111	1.00000	0.92914	0.20845	0.28365	0.90218	0.85063	0.88112	-0.80665	0.17498
	-0.00358	0.12169	0.50183	0.53995	0.42014	0.23030	-0.29125	0.61570	-0.04692	0.50851	-0.49469
	-0.15745	-0.29089	-0.81553	-0.76683	-0.74914	-0.08378	0.98615				
ROW 15	0.02030	0.17294	0.94121	0.96573	0.93821	0.89624	0.95208	0.97106	0.85968	0.96373	0.91844
	0.89840	0.88271	0.92914	1.00000	0.31694	0.43559	0.95694	0.93626	0.93822	-0.87988	0.25055
	0.06967	0.12146	0.48335	0.41634	0.52242	0.39737	-0.19850	0.71964	-0.00768	0.57833	-0.46924
	-0.06983	-0.36186	-0.87288	-0.84179	-0.87611	-0.08457	0.98067				
ROW 16	0.03507	0.23566	0.24569	0.21329	0.24460	0.30724	0.23698	0.17467	0.10336	0.28705	0.29576
	0.20750	0.17644	0.20845	0.31694	1.00000	0.92859	0.23789	0.37328	0.27564	-0.25028	0.26785
	0.27719	0.09671	0.21356	-0.21325	-0.08432	0.28730	0.09571	0.09930	0.14748	-0.15518	-0.30163
	-0.22991	-0.24032	-0.23079	-0.27212	-0.36655	0.05832	0.66645				
ROW 17	-0.04945	0.26121	0.29579	0.34581	0.29336	0.35178	0.29860	0.27735	0.16479	0.42205	0.38724
	0.31162	0.29364	0.28365	0.43559	0.92859	1.00000	0.30157	0.41811	0.32193	-0.36181	0.20691
	0.17286	0.06413	0.15675	-0.16612	0.03440	0.41040	-0.02638	0.27548	0.28710	0.00438	-0.44147
	-0.23372	-0.26131	-0.35136	-0.38088	-0.42729	-0.06051	0.47030				
ROW 18	0.14461	0.06352	0.98247	0.98122	0.98873	0.90178	0.99014	0.97519	0.92868	0.92384	0.91720
	0.85106	0.81810	0.90218	0.95694	0.23789	0.30157	1.00000	0.96798	0.98268	-0.89279	0.25549
	0.10981	0.18456	0.43139	0.48576	0.52116	0.24786	-0.17647	0.65472	-0.13062	0.59543	-0.35794
	-0.01331	-0.38583	-0.86978	-0.83877	-0.92195	0.04140	0.92708				
ROW 19	0.21520	0.11499	0.98171	0.98107	0.98165	0.89744	0.97518	0.94886	0.92479	0.91119	0.93272
	0.84102	0.80230	0.85063	0.93626	0.37328	0.41811	0.96798	1.00000	0.98959	-0.90157	0.24146
	0.19157	0.23723	0.39315	0.45326	0.43875	0.28966	-0.16864	0.68743	-0.08632	0.51628	-0.41178
	-0.10349	-0.46356	-0.87772	-0.85796	-0.93445	0.12514	0.88985				
ROW 20	0.22329	0.09815	0.98706	0.99170	0.99007	0.88209	0.98170	0.96457	0.94510	0.90534	0.92979
	0.84396	0.80621	0.88112	0.93822	0.27564	0.32193	0.98268	0.98959	1.00000	-0.88975	0.21996
	0.15234	0.23015	0.38453	0.50903	0.46560	0.25840	-0.16002	0.67902	-0.10832	0.55332	-0.37697
	-0.07723	-0.40881	-0.86839	-0.83606	-0.91794	0.12729	0.89771				
ROW 21	-0.12343	-0.09752	-0.91173	-0.91136	-0.90733	-0.78557	-0.91202	-0.90981	-0.85791	-0.90003	-0.88154
	-0.88398	-0.86703	-0.80665	-0.87988	-0.25028	-0.36181	-0.89279	-0.90157	-0.88975	1.00000	-0.12611
	-0.24337	-0.17029	-0.33602	-0.50366	-0.44143	-0.33079	0.26566	-0.73618	0.02932	-0.56708	0.40722
	0.02072	0.45117	0.99362	0.97175	0.97228	-0.02172	-0.90845				
ROW 22	-0.22292	0.37209	0.25828	0.24459	0.27593	0.28270	0.28375	0.21219	0.15323	0.19069	0.04154
	-0.02524	-0.01259	0.17498	0.25055	0.26785	0.20691	0.25549	0.24146	0.21996	-0.12611	1.00000
	-0.26266	0.03085	0.17569	0.03175	-0.13241	0.33921	0.31596	-0.03766	-0.07222	-0.18086	0.17296
	0.28670	-0.19866	-0.10019	-0.08579	-0.24666	-0.18841	0.93610				
ROW 23	0.39885	0.10840	0.16593	0.12374	0.14938	0.21587	0.13103	0.05752	0.09937	0.10562	0.27080
	0.25979	0.20837	-0.00358	0.06967	0.27719	0.17286	0.10981	0.19157	0.15234	-0.24337	-0.26266
	1.00000	-0.14617	0.22110	-0.19727	-0.03641	0.07924	0.12025	0.06946	-0.08640	-0.09431	0.06736
	0.09972	-0.15130	-0.24989	-0.35750	-0.30083	0.42078	-0.				
ROW 24	0.19312	-0.32456	0.22682	0.23036	0.20948	0.28158	0.19675	0.17213	0.27668	0.18418	0.24632
	0.17725	0.17216	0.12169	0.12146	0.09671	0.06413	0.18456	0.23723	0.23015	-0.17029	0.03085
	-0.14617	1.00000	-0.06251	-0.14210	0.38910	-0.29239	-0.28063	-0.00164	-0.23350	0.31554	0.09600
	-0.08461	-0.18022	-0.17908	-0.15396	-0.26088	0.14473	0.09528				

Table 9 Correlation Matrix Print Out Sheet, **Flexible Pavements** Sheet 3 of 4

Vertical Row Numbers	Horizontal Row Numbers										
	1 12 23 34	2 13 24 35	3 14 25 36	4 15 26 37	5 16 27 38	6 17 28 39	7 18 29 40	8 19 30 41	9 20 31 42	10 21 32 43	11 22 33 44
ROW 25	-0.10673 0.56877 0.22110 0.20584	0.04658 0.48257 -0.06251 -0.35850	0.40672 0.50183 1.00000 -0.35418	0.44826 0.48335 -0.08032 -0.42494	0.42208 0.21356 0.02487 -0.35948	0.50847 0.15675 0.11909 -0.08146	0.45013 0.43139 -0.07083 0.09528	0.41803 0.39315 0.09676	0.42355 0.38453 -0.20080	0.50837 -0.33602 -0.10258	0.51552 0.17569 -0.27265
ROW 26	-0.02478 0.38968 -0.19727 -0.21060	-0.00916 0.39068 -0.14210 -0.08535	0.48045 0.53995 -0.08032 -0.49732	0.54193 0.41634 1.00000 -0.39482	0.50710 -0.21325 -0.03451 -0.28669	0.11585 -0.16612 0.09386 -0.07095	0.47931 0.48576 -0.15503 0.90366	0.49465 0.45326 0.48802	0.51626 0.50903 -0.05158	0.39779 -0.50366 0.26231	0.33967 0.03175 -0.29171
ROW 27	0.07446 0.46463 -0.03641 -0.05152	-0.09530 0.51485 0.38910 0.01600	0.50657 0.42014 0.02487 -0.43238	0.45744 0.52242 -0.03451 -0.37541	0.47221 -0.08432 1.00000 -0.55617	0.56411 0.03440 0.01319 -0.09086	0.48228 0.52116 -0.22510 0.09528	0.57207 0.43875 0.43345	0.42685 0.46560 -0.13854	0.47190 -0.44143 0.93694	0.45593 -0.13241 -0.03116
ROW 28	0.05956 0.25637 0.07924 0.24709	0.92313 0.31280 -0.29239 0.18055	0.26015 0.23030 0.11909 -0.35371	0.22941 0.39737 0.09386 -0.30889	0.26301 0.28730 0.01319 -0.33770	0.32568 0.41040 1.00000 0.04286	0.28505 0.24786 0.55559 0.53482	0.32325 0.28966 0.57337	0.12509 0.25840 0.45190	0.35327 -0.33079 0.00623	0.21674 0.33921 -0.05805
ROW 29	-0.34488 -0.35834 0.12025 0.42753	0.83257 -0.34722 -0.28063 0.54651	-0.18785 -0.29125 -0.07083 0.27575	-0.33019 -0.19850 -0.15503 0.29004	-0.15661 0.09571 -0.22510 0.14491	-0.09445 -0.02638 0.55559 0.40394	-0.17367 -0.17647 1.00000 0.55429	-0.20379 -0.16864 -0.05304	-0.26399 -0.16002 0.06433	-0.27711 0.26566 -0.32848	-0.30030 0.31596 0.55885
ROW 30	0.28845 0.68881 0.06946 -0.12975	0.35745 0.73734 -0.00164 -0.06941	0.69890 0.61570 0.09676 -0.75352	0.69375 0.71964 0.48802 -0.66656	0.66097 0.09930 0.43345 -0.65764	0.60682 0.27548 0.57337 0.17063	0.69277 0.65472 -0.05304 0.59565	0.75636 0.68743 1.00000	0.65686 0.67902 0.35063	0.72128 -0.73618 0.58640	0.65210 -0.03766 -0.34295
ROW 31	0.11865 -0.07176 -0.08640 -0.12646	0.33080 0.02285 -0.23350 0.10312	-0.10051 -0.04692 -0.20080 -0.00335	-0.16929 -0.00768 -0.05158 0.06602	-0.14650 0.14748 -0.13854 0.01588	-0.08797 0.28710 0.45190 0.09519	-0.09125 -0.13062 0.06433 -0.57730	-0.04672 -0.08632 0.35063	-0.11779 -0.10832 1.00000	-0.00430 0.02932 -0.06082	-0.09708 -0.07222 -0.13821
ROW 32	0.09258 0.52533 -0.09431 -0.17652	-0.14775 0.57955 0.31554 -0.03306	0.59021 0.50851 -0.10258 -0.55562	0.55288 0.57833 0.26231 -0.47282	0.55636 -0.15518 0.93694 -0.56421	0.51416 0.00438 0.00623 -0.08691	0.56162 0.59543 -0.32848 -0.	0.65822 0.51628 0.58640	0.53694 0.55332 -0.06082	0.54059 -0.56708 1.00000	0.50589 -0.18086 -0.13920
ROW 33	0.17962 -0.49007 0.06736 0.39367	0.21976 -0.42191 0.09600 0.54549	-0.34917 -0.49469 -0.27265 0.42005	-0.42925 -0.46924 -0.29171 0.41385	-0.35420 -0.30163 -0.03116 0.26818	-0.31134 -0.44147 -0.05805 0.21063	-0.36747 -0.35794 0.55885 0.32762	-0.38165 -0.41178 -0.34295	-0.39678 -0.37697 -0.13821	-0.54304 0.40722 -0.13920	-0.52345 0.17296 1.00000
ROW 34	-0.03424 -0.07803 0.09972 1.00000	0.36232 -0.08086 -0.08461 0.24489	-0.07902 -0.15745 0.20584 0.01425	-0.06554 -0.06983 -0.21060 -0.01170	-0.02993 -0.22991 -0.05152 -0.14230	0.21331 -0.23372 0.24709 0.00223	-0.02056 -0.01331 0.42753 0.99536	-0.05302 -0.10349 -0.12975	-0.04510 -0.07723 -0.12646	-0.06083 0.02072 -0.17652	-0.08194 0.28670 0.39367
ROW 35	0.07174 -0.34889 -0.15130 0.24489	0.37301 -0.24503 -0.18022 1.00000	-0.45035 -0.29089 -0.35850 0.43309	-0.46782 -0.36186 -0.08535 0.47933	-0.45469 -0.24032 0.01600 0.41954	-0.35841 -0.26131 0.18055 0.07449	-0.43877 -0.38583 0.54651 0.14935	-0.36683 -0.46356 -0.06941	-0.52387 -0.40881 0.10312	-0.43006 0.45117 -0.03306	-0.48736 -0.19866 0.54549
ROW 36	-0.13009 -0.90164 -0.24989 0.01425	-0.10813 -0.88710 -0.17908 0.43309	-0.89269 -0.81553 -0.35418 1.00000	-0.89690 -0.87288 -0.49732 0.96790	-0.88427 -0.23079 -0.43238 0.94381	-0.76691 -0.35136 -0.35371 -0.02936	-0.89436 -0.86978 0.27575 -0.88210	-0.89797 -0.87772 -0.75352	-0.84780 -0.86839 -0.00335	-0.90323 0.99362 -0.55562	-0.88267 -0.10019 0.42005

Table 9 Correlation Matrix Print Out Sheet, **Flexible Pavements** Sheet 4 of 4

Vertical Row Numbers	Horizontal Row Numbers										
	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31	32	33
	34	35	36	37	38	39	40	41	42	43	44
ROW 37	-0.10325	-0.07166	-0.86145	-0.87046	-0.85469	-0.77833	-0.86507	-0.85142	-0.80267	-0.89379	-0.88385
	-0.91063	-0.88155	-0.76683	-0.84179	-0.27212	-0.38088	-0.83877	-0.85796	-0.83606	0.97175	-0.08579
	-0.35750	-0.15396	-0.42494	-0.39482	-0.37541	-0.30889	0.29004	-0.66656	0.06602	-0.47282	0.41385
	-0.01170	0.47933	0.96790	1.00000	0.91710	-0.01990	-0.90481				
ROW 38	-0.20327	-0.16374	-0.93621	-0.92029	-0.93300	-0.94327	-0.93460	-0.91492	-0.87393	-0.86871	-0.87901
	-0.80856	-0.79463	-0.74914	-0.87611	-0.36655	-0.42729	-0.92195	-0.93445	-0.91794	0.97228	-0.24666
	-0.30083	-0.26088	-0.35948	-0.28669	-0.55617	-0.33770	0.14491	-0.65764	0.01588	-0.56421	0.26818
	-0.14230	0.41954	0.94381	0.91710	1.00000	-0.10507	-0.85015				
ROW 39	0.98329	0.21534	0.10830	0.03602	0.08601	0.09742	0.09233	0.00070	0.20272	-0.00882	0.15644
	-0.03479	-0.10243	-0.08378	-0.08457	0.05832	-0.06051	0.04140	0.12514	0.12729	-0.02172	-0.18841
	0.42078	0.14473	-0.08146	-0.07095	-0.09086	0.04286	0.40394	0.17063	0.09519	-0.08691	0.21063
	0.00223	0.07449	-0.02936	-0.01990	-0.10507	1.00000	-0.25536				
ROW 40	-0.42977	0.55504	0.88488	0.86486	0.89925	0.97466	0.91161	0.95794	0.66598	0.94879	0.75992
	0.96661	0.98811	0.98615	0.98067	0.66645	0.47030	0.92708	0.88985	0.89771	-0.90845	0.93610
	-0.	0.09528	0.09528	0.90366	0.09528	0.53482	0.55429	0.59565	-0.57730	-0.	0.32762
	0.99536	0.14935	-0.88210	-0.90481	-0.85015	-0.25536	1.00000				

Table. 10 Equipment Equations for Rigid Pavements

(SV)

$$SV = A_0 + A_1 F$$

where:

SV = Slope Variance AASHO Profilometer

A_0 = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_0	A_1		
Ind. Rough.	Roughness	-45.16	0.556	14.61	0.80
Ill. Rough.	"	-38.18	0.509	14.77	0.79
BPR Rough.	"	-39.10	0.494	14.53	0.80
N.Y. Rough.	"	-36.53	0.484	13.03	0.84
Tenn. Rough.	"	-37.53	0.505	12.21	0.86
Mich. Rough.	"	-26.61	0.176	12.40	0.86
Mich. Rough.	Acceleration	-30.34	0.041	15.13	0.78
Minn. Rough.	Roughness (E)	-42.60	0.520	14.22	0.81
Minn. Rough.	" (M)	-43.33	0.538	15.36	0.77
S. D. Rough.	"	-39.73	0.510	14.56	0.80
U. of Mich. Prof.	"	-27.51	0.290	11.65	0.88
AASHO Prof.	SV				
AASHO Prof.	$\sqrt{SV}$				
AASHO Prof.	$\log(1+SV)$				
CHLOE Prof.	SV	- 6.76	1.237	18.44	0.65
CHLOE Prof.	$\sqrt{SV}$	-24.57	10.00	19.13	0.61
CHLOE Prof.	$\log(1+SV)$	-37.47	43.15	20.04	0.56
Texas Texture	Texture	4.59	8.60	16.18	0.74
S. D. Texture	"	6.33	6.82	18.34	0.65
Kent'ky Accel.	Accel. Index (40)	-56.53	0.154	15.50	0.77
Kent'ky Accel.	" " (51.5)	-37.27	0.109	19.13	0.61
Kent'ky Accel.	" " (60)	-39.61	0.097	20.28	0.54

Table. 11 Equipment Equations for Rigid Pavements

($\sqrt{SV}$)

$$\sqrt{SV} = A_0 + A_1 F$$

where:

SV = Slope Variance AASHO Profilometer

A_0 = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_0	A_1		
Ind. Rough.	Roughness	-2.63	0.056	0.98	0.89
Ill. Rough.	"	1.96	0.052	0.98	0.89
BPR Rough.	"	-1.92	0.049	1.04	0.88
N.Y. Rough.	"	-1.59	0.047	0.88	0.91
Tenn. Rough.	"	-1.64	0.049	0.81	0.93
Mich. Rough.	"	-0.59	0.017	0.76	0.94
Mich. Rough.	Acceleration	-1.18	0.028	0.80	0.93
Minn. Rough.	Roughness (E)	-2.27	0.051	0.99	0.89
Minn. Rough.	" (M)	-2.51	0.055	1.06	0.87
S. D. Rough.	"	-1.99	0.050	1.03	0.88
U. of Mich. Prof.	"	-0.61	0.028	0.80	0.93
AASHO Prof.	SV				
AASHO Prof.	$\sqrt{SV}$				
AASHO Prof.	log (1+SV)				
CHLOE Prof.	SV				
CHLOE Prof.	$\sqrt{SV}$	-0.64	1.03	1.56	0.70
CHLOE Prof.	log (1+SV)				
Texas Texture	Texture	2.58	0.140	1.53	0.71
S. D. Texture	"	2.71	0.595	1.68	0.63
Kent'ky Accel.	Accel. Index (40)	-4.05	0.016	0.99	0.89
Kent'ky Accel.	" " (51.5)	-2.26	0.012	1.47	0.74
Kent'ky Accel.	" " (60)	-2.75	0.011	1.59	0.68
CHLOE Prof. *	$\sqrt{SV}$	0.70	0.75	0.55	0.91

* Sections 6, 9a and 53 deleted from analysis

Table. 12 Equipment Equations for Rigid Pavements

(Indiana Roughometer)

$$R = A_o + A_1 F$$

where:

R Roughness (in./ mi.)

A_o = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_o	A_1		
Ind. Rough.	Roughness				
Ill. Rough.	"	12.35	0.918	3.16	1.00
BPR Rough.	"	12.29	0.877	4.98	0.99
N.Y. Rough.	"	22.02	0.814	5.44	0.99
Tenn. Rough.	"	22.62	0.828	5.49	0.99
Mich. Rough.	"	41.8	0.29	7.30	0.98
Mich. Rough.	Acceleration	25.9	0.074	5.63	0.99
Minn. Rough.	Roughness (E)	7.97	0.907	6.20	0.98
Minn. Rough.	" (M)	0.69	0.991	4.39	0.99
S. D. Rough.	"	10.91	0.906	4.65	0.99
U. of Mich. Prof.	"	41.75	0.459	8.67	0.97
AASHO Prof.	SV	93.20	1.14	20.93	0.80
AASHO Prof.	$\sqrt{SV}$	60.67	14.22	15.61	0.89
AASHO Prof.	log (1+SV)	44.79	60.90	19.57	0.82
CHLOE Prof.	SV	73.16	2.024	23.37	0.74
CHLOE Prof.	$\sqrt{SV}$	42.14	16.804	24.17	0.72
CHLOE Prof.	log (1+SV)	21.23	74.594	25.59	0.67
Texas Texture	Texture	99.37	9.205	28.77	0.55
S. D. Texture	"	101.62	7.066	30.50	0.47
Kent'ky Accel.	Accel. Index (40)	- 20.77	0.277	9.04	0.97
Kent'ky Accel.	" " (51.5)	1.78	0.220	17.57	0.86
Kent'ky Accel.	" " (60)	- 5.46	0.200	21.51	0.78

Table. 13 Equipment Equations for Overlay Pavements

(SV)

$$SV = A_o + A_1 F$$

where:

SV = Slope Variance AASHO Profilometer

A_o = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_o	A_1		
Ind. Rough.	Roughness	-41.52	0.532	3.84	0.99
Ill. Rough.	"	-26.25	0.427	4.48	0.98
BPR Rough.	"	-34.08	0.474	4.90	0.98
N.Y. Rough.	"	-30.34	0.446	6.44	0.96
Tenn. Rough.	"	-30.50	0.447	3.89	0.99
Mich. Rough.	"	-14.62	0.135	3.05	0.99
Mich. Rough.	Acceleration	-20.14	0.036	10.54	0.88
Minn. Rough.	Roughness (E)	-27.82	0.425	4.26	0.98
Minn. Rough.	" (M)	-29.13	0.467	5.04	0.97
S. D. Rough.	"	-29.72	0.410	4.68	0.98
U. of Mich. Prof.	"	-15.35	0.240	4.71	0.98
AASHO Prof.	SV				
AASHO Prof.	$\sqrt{SV}$				
AASHO Prof.	log (1+SV)				
CHLOE Prof.	SV	- 1.29	1.11	6.15	0.96
CHLOE Prof.	$\sqrt{SV}$	-25.8	11.57	6.36	0.96
CHLOE Prof.	log (1+SV)	-48.5	59.05	9.34	0.91
Texas Texture	Texture	13.22	1.24	21.63	0.25
S. D. Texture	"	8.79	2.702	18.36	0.57
Kent'ky Accel.	Accel. Index (40)	-24.75	0.109	18.27	0.58
Kent'ky Accel.	" " (51.5)	-28.21	0.106	16.87	0.66
Kent'ky Accel.	" " (60)	-25.69	0.084	17.86	0.60

Table. 14 Equipment Equations for Overlay Pavements

($\sqrt{SV}$)

$$\sqrt{SV} = A_0 + A_1 F$$

where:

SV = Slope Variance AASHO Profilometer

A_0 = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_0	A_1		
Ind. Rough.	Roughness	-2.40	0.054	0.50	0.98
Ill. Rough.	"	-0.83	0.043	0.58	0.97
BPR Rough.	"	-1.68	0.048	0.51	0.98
N.Y. Rough.	"	-1.39	0.046	0.60	0.97
Tenn. Rough.	"	-1.28	0.045	0.49	0.98
Mich. Rough.	"	0.42	0.013	0.66	0.96
Mich. Rough.	Acceleration	-0.36	0.004	0.97	0.91
Minn. Rough.	Roughness (E)	-0.99	0.043	0.55	0.97
Minn. Rough.	" (M)	-1.02	0.046	0.77	0.94
S. D. Rough.	"	-1.10	0.041	0.73	0.95
U. of Mich. Prof.	"	0.29	0.024	0.62	0.96
AASHO Prof.	SV				
AASHO Prof.	$\sqrt{SV}$				
AASHO Prof.	log (1+SV)				
CHLOE Prof.	SV	1.80	0.11	1.00	0.90
CHLOE Prof.	$\sqrt{SV}$	-0.78	1.17	0.74	0.95
CHLOE Prof.	log (1+SV)	-3.47	6.33	0.73	0.95
Texas Texture	Texture	3.02	0.18	2.15	0.35
S. D. Texture	"	2.63	0.307	1.78	0.63
Kent'ky Accel.	Accel. Index (40)	-1.56	0.013	1.67	0.69
Kent'ky Accel.	" " (51.5)	-2.01	0.013	1.42	0.79
Kent'ky Accel.	" " (60)	-1.75	0.010	1.57	0.73

Table. 15 Equipment Equations for Overlay Pavements

(Indiana Roughometer)

$$R = A_0 + A_1 F$$

where:

R = Roughness (in/mi)

A_0 = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_0	A_1		
Ind. Rough.	Roughness				
Ill. Rough.	"	29.47	0.803	4.74	0.99
BPR Rough.	"	14.68	0.888	3.71	1.00
N.Y. Rough.	"	22.82	0.836	13.63	0.95
Tenn. Rough.	"	20.83	0.847	5.06	0.99
Mich. Rough.	"	49.91	0.257	7.76	0.98
Mich. Rough.	Acceleration	38.76	0.072	14.80	0.93
Minn. Rough.	Roughness (E)	27.16	0.795	4.04	1.00
Minn. Rough.	" (M)	23.71	0.872	5.28	0.99
S. D. Rough.	"	22.90	0.778	8.97	0.98
U. of Mich. Prof.	"	47.09	0.461	6.86	0.99
AASHO Prof.	SV	78.92	1.82	7.10	0.99
AASHO Prof.	$\sqrt{SV}$				
AASHO Prof.	log (1+SV)	28.84	73.32	17.24	0.91
CHLOE Prof.	SV	76.96	2.00	14.56	0.94
CHLOE Prof.	$\sqrt{SV}$				
CHLOE Prof.	log (1+SV)	- 12.98	100.72	16.15	0.92
Texas Texture	Texture	100.3	3.18	38.79	0.35
S. D. Texture	"	94.57	5.348	33.14	0.58
Kent'ky Accel.	Accel. Index (40)	16.08	0.250	28.50	0.71
Kent'ky Accel.	" " (51.5)	11.54	0.233	27.05	0.75
Kent'ky Accel.	" " (60)	14.97	0.189	29.52	0.69

Table. 16 Equipment Equations for Flexible Pavements

(SV)

$$SV = A_0 + A_1 F$$

where:

SV = Slope Variance AASHO Profilometer

A_0 = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_0	A_1		
Ind. Rough.	Roughness	-16.49	0.264	5.93	0.88
Ill. Rough.	"	-14.06	0.269	5.28	0.91
BPR Rough.	"	-14.85	0.253	6.09	0.87
N.Y. Rough.	"	-15.20	0.270	5.66	0.89
Tenn. Rough.	"	-14.98	0.263	5.55	0.89
Mich. Rough.	"	- 5.79	0.088	5.22	0.91
Mich. Rough.	Acceleration	- 8.12	0.023	7.01	0.82
Minn. Rough.	Roughness (E)	-13.42	0.227	6.48	0.85
Minn. Rough.	" (M)	-15.63	0.262	5.83	0.88
S. D. Rough.	"	-19.62	0.299	5.32	0.90
U. of Mich. Prof.	"	-11.93	0.154	5.00	0.91
AASHO Prof.	SV				
AASHO Prof.	$\sqrt{SV}$				
AASHO Prof.	log (1+SV)				
CHLOE Prof.	SV	- 0.36	0.595	4.56	0.93
CHLOE Prof.	$\sqrt{SV}$	-14.92	6.235	4.81	0.92
CHLOE Prof.	log (1+SV)	-24.52	36.056	3.35	0.96
Texas Texture	Texture	13.79	0.192	12.05	0.21
S. D. Texture	"	13.30	0.246	11.82	0.28
Kent'ky Accel.	Accel. Index (40)	-21.81	0.083	6.08	0.87
Kent'ky Accel.	" " (51.5)	-16.34	0.051	5.41	0.90
Kent'ky Accel.	" " (60)	-13.37	0.034	5.83	0.88

Table. 17 Equipment Equations for Flexible Pavements

($\sqrt{SV}$)

$$\sqrt{SV} = A_0 + A_1 F$$

where:

SV = Slope Variance AASHO Profilometer

A_0 = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_0	A_1		
Ind. Rough.	Roughness	-0.36	0.033	0.67	0.90
Ill. Rough.	"	-0.04	0.034	0.60	0.93
BPR Rough.	"	-0.14	0.032	0.70	0.89
N.Y. Rough.	"	-0.16	0.034	0.65	0.91
Tenn. Rough.	"	-0.15	0.033	0.63	0.91
Mich. Rough.	"	1.06	0.011	0.65	0.90
Mich. Rough.	Acceleration	0.76	0.003	0.86	0.83
Minn. Rough.	Roughness (E)	-0.03	0.029	0.71	0.88
Minn. Rough.	" (M)	-0.26	0.033	0.65	0.90
S. D. Rough.	"	-0.71	0.037	0.62	0.91
U. of Mich. Prof.	"	0.29	0.019	0.60	0.92
AASHO Prof.	SV				
AASHO Prof.	$\sqrt{SV}$				
AASHO Prof.	log (1+SV)				
CHLOE Prof.	SV	1.72	0.073	0.56	0.93
CHLOE Prof.	$\sqrt{SV}$	-0.16	0.786	0.51	0.94
CHLOE Prof.	log (1+SV)	-2.38	4.496	0.56	0.93
Texas Texture	Texture	3.31	0.033	1.45	0.29
S. D. Texture	"	3.31	0.037	1.43	0.35
Kent'ky Accel.	Accel. Index (40)	-0.97	0.010	0.72	0.88
Kent'ky Accel.	" " (51.5)	0.21	0.006	0.69	0.89
Kent'ky Accel.	" " (60)	0.14	0.004	0.73	0.88

Table. 18 Equipment Equations for Flexible Pavements

(Indiana Roughometer)

$$R = A_0 + A_1 F$$

where:

R = Roughness (in/mi)

A_0 = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_0	A_1		
Ind. Rough.	Roughness				
Ill. Rough.	"	13.42	0.974	6.42	1.00
BPR Rough.	"	6.11	0.960	5.04	0.99
N.Y. Rough.	"	6.79	0.997	5.89	0.99
Tenn. Rough.	"	8.75	0.974	4.72	0.99
Mich. Rough.	"	45.39	0.314	8.85	0.98
Mich. Rough.	Acceleration	30.88	0.088	13.20	0.95
Minn. Rough.	Roughness (E)	10.29	0.873	7.80	0.98
Minn. Rough.	" (M)	5.49	0.976	6.57	0.99
S. D. Rough.	"	- 5.56	1.082	7.64	0.98
U. of Mich. Prof.	"	30.43	0.515	16.26	0.92
AASHO Prof.	SV	77.65	2.916	19.72	0.88
AASHO Prof.	$\sqrt{SV}$	33.75	24.188	18.19	0.90
AASHO Prof.	log (1+SV)	- 2.23	112.383	17.72	0.90
CHLOE Prof.	SV	68.65	2.004	13.85	0.94
CHLOE Prof.	$\sqrt{SV}$	17.21	21.471	12.41	0.95
CHLOE Prof.	log (1+SV)	- 44.14	123.403	13.49	0.94
Texas Texture	Texture	114.45	0.754	39.73	0.25
S. D. Texture	"	114.30	0.855	39.16	0.30
Kent'ky Accel.	Accel. Index (40)	- 9.63	0.291	15.92	0.92
Kent'ky Accel.	" " (51.5)	21.50	0.161	21.18	0.86
Kent'ky Accel.	" " (60)	32.28	0.105	23.00	0.83

Table. 19 Equipment Equations for Flexible and Overlay Pavements

(SV)

$$SV = A_0 + A_1 F$$

where:

SV = Slope Variance AASHO Profilometer

A_0 = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_0	A_1		
Ind. Rough.	Roughness	-23.92	0.338	7.78	0.87
Ill. Rough.	"	-19.23	0.329	6.43	0.92
BPR Rough.	"	-21.16	0.319	7.73	0.87
N.Y. Rough.	"	-21.46	0.335	7.24	0.90
Tenn. Rough.	"	-21.06	0.328	6.73	0.90
Mich. Rough.	"	10.11	0.108	5.69	0.93
Mich. Rough.	Acceleration	-13.41	0.029	8.73	0.83
Minn. Rough.	Roughness (E)	-17.33	0.277	8.26	0.85
Minn. Rough.	" (M)	-18.92	0.311	8.00	0.86
S. D. Rough.	"	-24.97	0.351	5.67	0.93
U. of Mich. Prof.	"	-11.88	0.171	7.48	0.88
AASHO Prof.	SV				
AASHO Prof.	$\sqrt{SV}$				
AASHO Prof.	log (1+SV)				
CHLOE Prof.	SV	0.01	0.687	8.12	0.86
CHLOE Prof.	$\sqrt{SV}$	-25.82	11.574	6.36	0.96
CHLOE Prof.	log (1+SV)	-48.54	59.047	9.34	0.91
Texas Texture	Texture	14.90	0.176	15.61	0.15
S. D. Texture	"	13.82	0.292	15.31	0.24
Kent'ky Accel.	Accel. Index (40)	-17.92	0.080	11.94	0.65
Kent'ky Accel.	" " (51.5)	- 8.14	0.044	12.47	0.61
Kent'ky Accel.	" " (60)	- 2.33	0.025	13.28	0.54

Table. 20 Equipment Equations for Flexible and Overlay Pavements

($\sqrt{SV}$)

$$\sqrt{SV} = A_o + A_1 F$$

where:

SV = Slope Variance AASHO Profilometer

A_o = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_o	A_1		
Ind. Rough.	Roughness	-0.99	0.039	0.74	0.91
Ill. Rough.	"	-0.38	0.037	0.63	0.94
BPR Rough.	"	-0.67	0.037	0.74	0.91
N.Y. Rough.	"	-0.69	0.039	0.68	0.93
Tenn. Rough.	"	-0.61	0.038	0.64	0.93
Mich. Rough.	"	0.75	0.012	0.66	0.93
Mich. Rough.	Acceleration	0.26	0.003	0.90	0.86
Minn. Rough.	Roughness (E)	-0.26	0.032	0.78	0.90
Minn. Rough.	" (M)	-0.39	0.036	0.79	0.89
S. D. Rough.	"	-0.91	0.039	0.64	0.93
U. of Mich. Prof.	"	0.44	0.020	0.73	0.91
AASHO Prof.	SV				
AASHO Prof.	$\sqrt{SV}$				
AASHO Prof.	log (1+SV)				
CHLOE Prof.	SV	1.82	0.078	0.85	0.88
CHLOE Prof.	$\sqrt{SV}$	-0.78	1.174	0.74	0.95
CHLOE Prof.	log (1+SV)	-3.47	6.332	0.73	0.95
Texas Texture	Texture	3.33	0.035	1.70	0.26
S. D. Texture	"	3.26	0.045	1.66	0.34
Kent'ky Accel.	Accel. Index (40)	-0.75	0.010	1.15	0.76
Kent'ky Accel.	" " (51.5)	0.47	0.006	1.22	0.72
Kent'ky Accel.	" " (60)	1.17	0.003	1.34	0.65

Table. 21 Equipment Equations for Flexible and Overlay Pavements

(Indiana Roughometer)

$$R = A_0 + A_1 F$$

where:

R = Roughness (in/mi)

A_0 = Intercept

A_1 = Constant

F = Function of equipment measurement

Equipment	Factor "F"	Coefficients		St'd Error	Corr. Coeff.
		A_0	A_1		
Ind. Rough.	Roughness				
Ill. Rough.	"	21.41	0.898	6.88	0.99
BPR Rough.	"	10.16	0.929	4.68	0.99
N.Y. Rough.	"	14.43	0.929	9.94	0.97
Tenn. Rough.	"	14.18	0.923	5.53	0.99
Mich. Rough.	"	47.67	0.292	10.15	0.97
Mich. Rough.	Acceleration	34.24	0.082	14.47	0.94
Minn. Rough.	Roughness (E)	21.10	0.813	7.62	0.98
Minn. Rough.	" (M)	16.70	0.906	7.10	0.99
S. D. Rough.	"	10.06	0.933	10.72	0.97
U. of Mich. Prof.	"	41.25	0.472	13.87	0.94
AASHO Prof.	SV	83.08	2.241	20.03	0.87
AASHO Prof.	$\sqrt{SV}$	42.40	20.958	17.13	0.91
AASHO Prof.	log (1+SV)	14.35	96.163	18.35	0.89
CHLOE Prof.	SV	71.89	1.967	14.30	0.94
CHLOE Prof.	$\sqrt{SV}$	27.10	20.296	13.39	0.95
CHLOE Prof.	log (1+SV)	-19.90	109.335	15.48	0.93
Texas Texture	Texture	106.31	1.100	38.76	0.35
S. D. Texture	"	107.36	1.205	37.63	0.38
Kent'ky Accel.	Accel. Index (40)	6.28	0.264	21.41	0.85
Kent'ky Accel.	" " (51.5)	38.72	0.144	25.29	0.78
Kent'ky Accel.	" " (60)	54.42	0.098	28.07	0.73

APPENDIX C ORIGINAL PROSPECTUS

RESEARCH PROSPECTUS

on

COMPARISON OF DIFFERENT METHODS OF MEASURING PAVEMENT CONDITIONS

(NCHRP Project 1-2)

Submitted to

Highway Research Board

by

School of Civil Engineering
Purdue University

Through

Purdue Research Foundation

Revision Submitted January 15, 1963

[illegible]

[illegible] (Revision Submitted [illegible]

[illegible]

[illegible] Iowa State University, and [illegible] Department of Highways. He has been active in consulting work on highway, street and airport projects. In addition to authoring [illegible] reports for the Iowa Highway Commission and [illegible], he is the author of the textbook "Principles of Pavement Design" [illegible] John Wiley and Sons.

[illegible]

[illegible] one-quarter mile on [illegible]

[illegible]

the Mechanical Engineering and Road [illegible] labor teams to assist in the project as needed. Other services offered by Purdue University include machine shop for maintenance of the test instruments, a computer center, and assistance from various scientific personnel on the staff of the University.

EQUIPMENT AND FACILITIES: All facilities required for completion of this project are available at Purdue University. Use will be made of the IBM 7040 Computer for establishing regression equations relating subjective and objective measurements. Machine shops for instrument repair and other small items are available at Purdue for maintaining road roughness equipment which will be used in the research project.

COOPERATIVE FEATURES: The Indiana Highway Commission has indicated that they will cooperate in the research project and will give assistance to the project where needed. They will assist in establishing the test sites, setting up road blocks and detours, and assistance will be obtained from the Indiana State Police to insure safety of personnel taking pavement roughness measurements.

Various agencies will be asked to bring pavement roughness instruments to Indiana and to run these over the test pavements. These agencies will be asked to furnish to Purdue University the data obtained by their instruments and all correlations will be made by Purdue personnel.

COST: The following cost estimate includes items of cost for equipment rental. Attention is directed to the fact that the equipment costs

[illegible]

[illegible] that [illegible] all [illegible] accordingly or to re-negotiate for an increased amount for [illegible] items.

I Salaries and Wages

A. Principal Investigators - - - - - - - - - - - - - - - - $ [illegible]
Prof. E. J. Yoder
[illegible]. E. Quinn
[illegible] time during the academic year
[illegible] time during the summer term

B. Graduate Research Assistants (2 Req'd) - - - - - - [illegible]
50% time for 12 months

C. Extra Labor - 2,[illegible]

Sub total, sal. & wages 11,[illegible]

II Retirement, Social Security, Workmen's Compensation Insurance, etc. - [illegible]

III [illegible] Supplies and Equipment - - - - - - - - - - - [illegible]

IV Computer Time and Services - - - - - - - - - - - - - - [illegible]

V Publication Costs - - - - - - - - - - - - - - - - - - - [illegible]

VI Travel - 1,[illegible]

VII [illegible] (Direct) - - - - - - - - - - - - - - - - [illegible]

VIII [illegible] Charges ([illegible]%* of salaries and wages) - - - - [illegible]

Grand Total - - - - - - $[illegible]0,000

TIME: It is proposed that the research contract be effective as soon after January 1, 1963 as is possible. The field work will be accomplished during the summer of 1963 after the pavements have reached equilibrium insofar as stability is concerned. It is imperative that the testing be conducted no earlier than July (and perhaps later) so that the

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* as prescribed by circular A-21

[illegible]

[illegible] of the contract will be [illegible] selecting pavement sites and arranging for the necessary equipment to be brought to Indiana. The research data will be analyzed during late summer and fall of 1963 and the early months of 1964. A final report will be submitted one year after the starting date of the contract.

RESEARCH PLAN:

(1) Select test sections. The exact number and type will depend upon accessibility of available pavements and will be determined after a conference between personnel from Purdue University and the Highway Research Board.

(2) Rate selected pavements by an appropriate rating panel. It may be desirable for this purpose to use more than one panel. It is desirable to include the old AASHO Rating Panel, if possible, in these tests.

(3) Make appropriate objective measurements of cracking, patching, and other elevation measurements on a selected number of test lengths of the pavements involved. The number will be selected by Purdue personnel.

(4) Invite persons, tentatively listed below, to conduct tests on the test sections. Final decisions relative to exact number and types of equipment will be contingent upon rental charges (maximum $10,000) and will be determined at a later date.

(a) The truck-mounted profilometer operated under the supervision of Professor Housel.

[illegible]

(c) The [illegible] [illegible] a profilometer for making the necessary measurements [illegible] available.

(d) The AASHO Slope Profilometer.

(e) The instrumentation developed by the General Motors Corp. for measuring highway [illegible] a specially instrumented trailer.

(f) The CHLOE profilometer developed at the AASHO Road Test.

(g) The Bureau of Public Roads Roughometer [illegible] additional instrumentation [illegible] by the [illegible].

(h) The [illegible] equipment [illegible].

(i) The [illegible] pressure measuring equipment used by Purdue University on an instrumented station wagon.

(j) The [illegible] pressure measuring [illegible] mounted on a [illegible] as used by the Michigan State Highway Department [illegible] Michigan.

These tests would be conducted at approximately the same time on the selected test sections.

(5) Request each agency to summarize their results and to present them in the form that they would use to evaluate pavement performance. Each agency would also be requested, if possible, to give the equivalent Present Serviceability Index ratings from the test equipment used. Each agency will be requested to submit copies of their original anologue records.

[illegible]

[illegible]

[illegible]

[illegible]

PROGRESS OF WORK: It will not be possible to [illegible] relationships [illegible] within the budget of $30,000. [illegible] through six (6) under "DESIGN PLAN" [illegible] order given. It is anticipated that [illegible] completion. Item seven (7) will be [illegible] as is possible within the budget [illegible]. [illegible] will not permit completion of Item 7.

SUPPORTING PERSONNEL DATA: Professor [illegible] efforts [illegible] the lines of pavement design and pavement evaluation. He has [illegible] performance surveys throughout Indiana [illegible] conducted research on pavement design for the State Highway Commission of Indiana as well as for the Corps of Engineers.

Professor Quinn is actively engaged in research related to methods of measuring pavement conditions. He has for the past [illegible] years [illegible] research for the Bureau of Public Roads relating to [illegible] pavement condition to the [illegible]. [illegible] instrumentation for measuring pavement condition and he and Professor Yoder are presently conducting a research project for the State Highway Commission and the Bureau of Public Roads relating to stresses and deflections in pavements.

[illegible]

[illegible]

[illegible] period.

7. It will be possible to obtain the services of [illegible] men [illegible] in the [illegible] of Purdue University as well as from the State Highway Commission of Kansas.